

## **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 American Sod Producers Association, one member from the United States Golf Association (USGA) Green Section, one member from the Turfgrass Breeders Association, an executive director and a national program coordinator. 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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LOCATIONS SUBMITTING DATA FOR 1998

<u>State</u>	<u>Location</u>	<u>Code</u>
Arkansas	Fayetteville	AR1
Iowa	Ames	IA1
Illinois	Urbana	IL1
Illinois	Carbondale	IL2
Kentucky	Lexington	KY1
Maryland	Beltsville (High mowing)	UB1
Maryland	Beltsville (Low mowing)	UB2
Michigan	East Lansing	MI1
Nebraska	Lincoln	NE1
New Jersey	North Brunswick	NJ1
Oklahoma	Stillwater	OK1
Quebec	Quebec	QE1
Rhode Island	Kingston	RI1
Virginia	Blacksburg	VA1
Washington	Pullman	WA1
Washington	Puyallup	WA3

1994 NATIONAL PERENNIAL RYEGRASS TEST

Entries and Sponsors

Entry No.	Name	Sponsor	Entry No.	Name	Sponsor
1	Elf	Bailey Seed & J. W. Jenks Co.	51	Repell III (LRF-94-C7)	Agribiotech, Inc.
2	Dancer	International Marketing Service	52	Prelude III (LRF-94-B6)	Agribiotech, Inc.
3	BAR Er 5813	Barenbrug Holland	53	Head Start (Pick PR 84-91)	Roberts Seed Co.
4	DSV NA 9401	Deutsche Saatveredelung	54	Blazer III (Pick 928)	Pickseed West, Inc.
5	DSV NA 9402	Deutsche Saatveredelung	55	Assure	LESCO, Inc.
6	Achiever	O. M. Scott & Sons	56	Advantage	LESCO, Inc.
7	APR 066	Advanta Seeds West, Inc.	57	Legacy II (LESCO-TWF)	LESCO, Inc.
8	ASP400 (APR 106)	Advanta Seeds West, Inc.	58	Williamsburg	LESCO, Inc.
9	APR 124	Advanta Seeds West, Inc.	59	Riviera II	Roberts Seed Co.
10	APR 131	Advanta Seeds West, Inc.	60	Premier II (BAR USA 94-II)	Barenbrug USA
11	Precision	Advanta Seeds West, Inc.	61	Protocol (Kooos 93-3)	J. R. Kooos & Sons
12	Calypso II	Roberts Seed Co.	62	Linn	Standard Entry
13	Laredo	Turf Merchants, Inc.	63	Stallion Select	Agribiotech, Inc.
14	Accent	Medalist America	64	Panther (ZPS-PR1)	Zajac Performance Seeds
15	Caddieshack (MED 5071)	Medalist America	65	Figaro	DLF/Trifolium
16	Top Gun (J-1703)	Jacklin Seed	66	DLP 1305	DLF/Trifolium
17	Monterey (J-1706)	Jacklin Seed Co.	67	Nine-O-One	Cascade International Seed Co.
18	Edge	Pickseed West, Inc.	68	SR 4010 (SRX 4010)	Seed Research of OR
19	Cutter	Pickseed West, Inc.	69	SR 4200	Seed Research of OR
20	Express	Pickseed West, Inc.	70	SR 4400 (SRX 4400)	Seed Research of OR
21	Esquire	Willamette Seed Co.	71	Omni	Royal Seeds
22	Vivid	Willamette Seed Co.	72	Night Hawk	Forbes Seed & Grain, Inc.
23	WX3-91	Agribiotech, Inc.	73	Buccaneer II (WVPB 92-4)	TAN-Ag.
24	WX3-93	Agribiotech, Inc.	74	Koos 93-6	J. R. Kooos & Sons
25	Stardance (PST-2FE)	LESCO, Inc.	75	PS-D-9	ProSeeds Marketing
26	Sonata (PST-2R3)	Pennington Seed, Inc.	76	Palmer III (LRF-94-MRH)	Agribiotech, Inc.
27	Chaparral (PST-2DLM)	Pure-Seed Testing, Inc.	77	Sunshine (Pick Lp 102-92)	Pickseed West, Inc.
28	Catalina (PST-GH-94)	Pure-Seed Testing, Inc.	78	CAS-LP23	Cascade International Seed Co.
29	Citation III (PST-2DGR)	Pure-Seed Testing, Inc.	79	Secretariat (RPBD)	Grasslands West
30	Brightstar II (PST-2MB)	Turf Seed, Inc.	80	PST-2CB	Turf-Seed, Inc.
31	Wind Star (PST-28M)	Pennington Seed, Inc.	81	Pennfine	Standard Entry
32	Roadrunner (PST-2ET)	Turf-Seed, Inc.	82	Morning Star	Pennington Seed, Inc.
33	Manhattan 3	Manhattan Rye Growers Assoc.	83	Saturn	Standard Entry
34	Prizm	Zajac Performance Seeds	84	Imagine	Agribiotech, Inc.
35	Navajo	Turf-Seed, Inc.	85	Pegasus	Agribiotech, Inc.
36	Saturn II (ZPS-2ST)	Zajac Perf. Seeds	86	Blackhawk (TMI-EXFLP94)	Turf Merchants, Inc.
37	Omega 3 (ZPS-2DR-94)	Zajac Perf. Seeds	87	Nobility	Ampac Seed Co.
38	Stallion Supreme (PSI-E-1)	Agribiotech, Inc.	88	Divine	Burlingham
39	Spell Bound (WVPB-93-KFK)	Landmark Seed Co.	89	Excel (MB 1-5)	Burlingham
40	WVPB-PR-C-2	Willamette Valley Plt .Breeders	90	Wizard (MB 41)	Burlingham
41	MVF-4-1	Mid-Valley Farms	91	Pennant II (MB 42)	Agribiotech, Inc.
42	Academy (PC-93-1)	Pratum Co-op	92	Majesty (MB 43)	Burlingham
43	Passport (PST-2FF)	Roberts Seed Co.	93	Radiant (MB 44)	Burlingham
44	Quickstart	Turf-Seed, Inc.	94	Ascend (MB 45)	Burlingham
45	MardiGras (ZPS-2NV)	Zajac Performance Seeds	95	Wind Dance (MB 46)	Pennington Seed, Inc.
46	Brightstar	Turf-Seed, Inc.	96	Line Drive (MB 47)	LESCO, Inc.
47	Derby Supreme (ISI-MHB)	International Seeds, Inc.			
48	R2 (ISI-R2)	International Seeds, Inc.			
49	Top Hat	International Seeds, Inc.			
50	LRF-94-C8	Agribiotech, Inc.			

TABLE A.

1998 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN  
THE 1994 NATIONAL PERENNIAL RYEGRASS 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
AR1	SILT LOAM AND SILT	6.1-6.5	151-270	241-375	3.1-4.0	FULL SUN	1.6-2.0	TO PREVENT STRESS
IA1	SANDY CLAY LOAM	7.1-7.5	0-60	241-375	2.1-3.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
IL1	SILT LOAM AND SILT	6.1-6.5	0-60	376-500	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
IL2	SILTY CLAY LOAM	6.1-6.5	271-450	151-240	4.1-5.0	FULL SUN	1.1-1.5	TO PREVENT STRESS
KY1	SILT LOAM AND SILT	6.1-6.5	61-150	241-375	3.1-4.0	FULL SUN	1.1-1.5	ONLY DURING SEVERE STRESS
MI1	SANDY LOAM	7.1-7.5	61-150	151-240	2.1-3.0	FULL SUN	3.1-3.5	TO PREVENT STRESS
NE1	SILTY CLAY LOAM	7.1-7.5	0-60	151-240	5.1-6.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
NJ1	SANDY LOAM	5.6-6.0	151-270	241-375	3.1-4.0	FULL SUN	1.1-1.5	TO PREVENT STRESS
OK1	SILTY CLAY LOAM	7.1-7.5	151-270	501+	2.1-3.0	FULL SUN	1.6-2.0	TO PREVENT STRESS
QE1	LOAMY SAND	7.1-7.5	0-60	0-150	1.1-2.0	FULL SUN	2.1-2.5	NO IRRIGATION
RI1	SILT LOAM AND SILT	5.6-6.0	61-150	151-240	3.1-4.0	FULL SUN	1.1-1.5	TO PREVENT STRESS
UB1	SILT LOAM AND SILT	6.1-6.5	151-270	151-240	3.1-4.0	FULL SUN	1.1-1.5	TO PREVENT DORMANCY
UB2	SILT LOAM AND SILT	5.6-6.0	151-270	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
VA1	SILT LOAM AND SILT	4.6-5.5	61-150	0-150	5.1-6.0	FULL SUN	2.1-2.5	ONLY DURING SEVERE STRESS
WA1	SILT LOAM AND SILT	6.1-6.5	151-270	501+	4.1-5.0	FULL SUN	1.6-2.0	TO PREVENT STRESS
WA3	SANDY LOAM	5.6-6.0	0-60	151-240	4.1-5.0	FULL SUN	1.1-1.5	TO PREVENT STRESS

TABLE B.

## LOCATIONS AND DATA COLLECTED IN 1998

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	LEAF TEXTURE	WEAR TOLERANCE
AR1			X	X	X	X	X	X	X				X		X	
IA1					X	X	X	X	X	X			X	X	X	
IL1				X	X	X	X	X	X	X			X		X	
IL2				X	X	X	X	X	X	X	X		X		X	
KY1			X	X	X	X	X	X	X	X			X		X	
MI1				X	X	X	X	X	X	X	X		X	X	X	
NE1				X	X	X	X	X	X				X		X	
NJ1				X	X	X	X	X	X	X			X	X		X
OK1				X	X	X	X	X	X	X	X	X	X	X	X	
QE1				X	X	X	X	X	X	X	X		X		X	
RI1					X	X	X	X	X	X	X		X		X	
UB1				X	X	X	X	X	X	X	X		X		X	
UB2				X	X	X	X	X	X	X	X		X			
VA1			X	X	X	X	X	X	X	X			X	X	X	
WA1				X	X	X	X	X	X	X			X	X	X	
WA3	X	X	X	X	X	X	X	X	X	X	X	X				

TABLE B. (CONT'D)

## LOCATIONS AND DATA COLLECTED IN 1998

LOCATION	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	WINTER COLOR	THATCH MEASUREMENTS	LEAF SPOT	DOLLAR SPOT	RED THREAD	BROWN PATCH	PYTHIUM BLIGHT	PERCENT BROWN PATCH/DOLLAR SPOT	PERCENT PATCH DISEASE	BROWN PATCH JULY	BROWN PATCH SEPTEMBER
AR1		X			X											X	X
IA1																	
IL1			X														
IL2													X				
KY1						X								X	X		
MI1																	
NE1	X	X	X									X					
NJ1										X							
OK1	X	X	X	X	X	X	X					X					
QE1	X	X	X					X									
RI1																	
UB1																	
UB2									X								
VA1											X	X					
WA1																	
WA3	X	X	X				X										



TABLE 1.

MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
GROWN AT SIXTEEN LOCATIONS IN THE U.S. AND CANADA 1/  
1998 DATA  
TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	AR1	IA1	IL1	IL2	KY1	MI1	NE1	NJ1	OK1	QE1	RI1	UB1	UB2	VA1	WA1	WA3	MEAN
* PALMER III (IRF-94-MPRH)	5.5	6.1	5.5	5.5	7.3	6.5	6.1	6.3	5.7	7.0	6.6	5.0	4.7	5.1	6.8	6.7	6.0
* SECRETARIAT (RPBD)	6.4	6.6	5.0	4.8	7.5	6.5	6.9	5.8	5.6	7.1	6.1	5.5	4.6	5.4	6.3	6.0	6.0
* BRIGHTSTAR II (PST-2M3)	6.4	5.8	4.0	5.3	7.8	7.2	5.7	6.6	5.9	6.6	5.0	5.4	5.4	4.8	7.3	6.6	6.0
* CALYPSO II	5.3	5.8	5.0	6.5	7.3	6.6	6.8	5.8	5.4	6.2	5.3	5.8	5.4	4.7	6.7	6.6	5.9
* PENNANT II (MB 42)	7.6	6.2	4.4	5.9	7.8	6.5	6.7	6.0	5.3	6.9	4.4	4.7	4.6	4.7	7.0	6.2	5.9
* MONTEREY (J-1706)	5.4	6.5	5.4	5.6	7.3	6.5	6.2	5.7	4.7	6.7	6.3	4.5	6.0	5.0	6.6	6.3	5.9
* ACCENT	6.7	6.3	5.2	5.5	7.0	6.5	6.3	4.9	6.0	6.3	5.3	5.3	5.7	5.4	6.2	5.9	5.9
RADIANT (MB 44)	6.7	6.1	4.8	5.9	7.8	6.7	6.2	5.7	5.7	6.6	4.3	4.5	4.7	4.6	7.8	6.0	5.9
* CATALINA (PST-GH-94)	6.3	6.2	4.5	5.9	6.8	6.6	6.3	5.9	5.7	6.3	5.0	5.0	6.0	4.7	6.6	5.9	5.9
* LAREDO	5.2	6.2	4.7	6.2	7.0	6.5	6.0	5.1	6.0	6.8	4.8	5.6	6.4	4.6	6.5	6.4	5.9
* PREMIER II (EAR USA 94-II)	6.1	6.4	4.7	4.6	7.5	6.6	6.6	6.0	5.3	6.9	4.8	4.8	5.4	5.1	6.5	6.3	5.8
* CADDIESHACK (MED 5071)	6.3	6.3	4.2	5.3	7.3	6.5	6.1	5.2	5.9	6.3	5.7	5.5	5.7	5.0	6.3	5.7	5.8
* SONATA (PST-2R3)	5.1	6.3	6.0	6.2	7.1	6.5	6.5	5.0	4.9	7.0	5.0	5.1	5.5	5.0	6.5	5.6	5.8
* EDGE	5.6	6.4	5.1	6.0	7.5	6.5	5.8	4.8	5.8	6.8	5.5	4.1	5.3	5.7	6.3	6.2	5.8
* SR 4400 (SRX 4400)	5.4	6.5	5.7	5.1	7.2	6.3	6.6	4.5	6.3	6.8	5.4	4.7	5.3	5.6	5.9	5.9	5.8
* BLACKHAWK (TMI-EXFLP94)	6.0	6.4	5.6	5.0	7.5	6.5	5.8	5.1	6.3	6.7	5.5	4.0	5.3	5.2	6.1	6.0	5.8
* PRIZM	6.0	6.0	4.8	4.8	7.5	6.5	6.7	5.4	5.8	6.9	5.0	4.7	4.9	4.8	6.6	6.3	5.8
* SR 4200	5.8	6.0	5.3	4.8	7.3	6.5	6.1	5.2	5.8	6.9	6.1	4.1	4.8	5.5	6.5	6.1	5.8
* ACHIEVER	6.0	6.4	5.0	5.8	7.1	6.4	6.1	4.6	6.0	6.6	5.2	4.7	5.5	5.3	6.2	5.7	5.8
* PANTHER (ZPS-PR1)	4.9	6.2	5.3	4.5	7.1	6.4	6.4	6.1	5.7	6.7	5.6	4.4	5.3	4.7	6.6	6.3	5.8
* PRELUDE III (LRF-94-B6)	5.9	5.6	4.1	5.6	8.3	6.7	5.9	5.9	5.2	6.8	4.5	5.0	5.0	5.0	7.0	5.8	5.8
* LINE DRIVE (MB 47)	5.5	6.5	4.9	5.3	7.5	6.5	6.3	5.8	6.0	6.6	5.0	4.0	4.6	4.6	6.9	6.0	5.8
* ESQUIRE	6.0	6.1	4.6	4.9	7.5	6.6	6.3	5.5	5.8	6.5	5.0	5.0	5.1	4.8	6.2	5.6	5.7
* ASSURE	6.4	6.3	5.1	4.5	7.1	6.5	6.1	4.5	5.9	6.3	5.0	5.7	5.3	4.9	6.1	6.0	5.7
* DERBY SUPREME (ISI-MHB)	5.0	6.3	5.1	4.9	7.3	6.4	6.7	4.8	5.5	6.8	6.1	4.5	4.8	5.0	6.2	6.2	5.7
* SUNSHINE (PICK LP 102-92)	5.6	6.2	4.4	5.4	7.4	6.5	6.5	5.7	5.9	6.2	5.0	4.6	4.6	5.0	6.7	5.8	5.7
* MANHATTAN 3	4.8	6.4	5.0	5.6	7.3	6.5	5.7	5.8	5.6	6.5	4.8	4.0	5.5	4.9	6.9	5.9	5.7
* TOP GUN (J-1703)	6.0	5.9	4.7	5.6	7.4	6.5	5.9	5.2	5.2	6.4	5.0	4.6	5.8	5.3	6.2	5.8	5.7
LRF-94-C8	6.6	6.2	4.0	5.5	7.9	6.8	5.9	5.7	5.3	6.9	3.6	3.8	5.0	4.9	7.1	5.8	5.7
* MARDIGRAS (ZPS-2NV)	5.2	6.3	4.2	5.7	7.2	6.5	6.8	5.1	5.2	7.0	5.0	4.2	5.0	5.0	6.6	6.1	5.7
* PASSPORT (PST-2FF)	5.8	6.0	4.4	5.5	7.3	6.5	6.6	5.1	5.4	7.1	4.5	4.6	4.6	5.5	6.5	5.8	5.7
* TOP HAT	6.3	6.0	4.8	4.8	7.6	6.6	6.3	4.6	5.8	6.0	5.5	3.9	5.3	5.1	6.2	6.2	5.7
* WIND STAR (PST-28M)	5.1	6.3	5.6	5.0	6.6	6.4	5.8	5.2	5.4	7.0	5.0	4.9	5.3	5.3	6.2	5.7	5.7
* MAJESTY (MB 43)	6.8	6.1	4.6	5.2	7.5	6.5	6.7	5.5	5.4	6.9	3.4	4.5	4.7	4.4	6.8	5.8	5.7
* STALLION SUPREME (PSI-E-1)	6.5	6.0	4.8	5.6	7.1	6.3	5.8	4.2	5.7	6.4	5.4	5.0	4.6	5.2	6.2	5.7	5.7
* REPELL III (IRF-94-C7)	5.7	5.8	3.9	5.8	8.2	6.6	6.2	5.9	5.5	6.0	3.8	4.2	4.5	5.1	7.1	6.3	5.7
* SATURN II (ZPS-2ST)	5.8	6.3	4.5	4.9	7.0	6.5	6.3	4.9	5.5	6.8	5.2	4.7	4.6	5.1	6.3	5.9	5.6
ASCEND (MB 45)	5.6	6.3	4.4	5.6	7.6	6.8	6.2	5.9	5.0	6.9	3.4	4.2	4.7	4.4	7.0	5.9	5.6
* DIVINE	4.8	6.6	4.1	5.0	7.3	6.5	6.3	5.6	6.2	7.1	4.8	4.5	4.7	4.7	6.6	5.3	5.6
PS-D-9	5.5	6.2	4.5	5.2	7.1	6.4	5.8	4.7	5.8	6.5	4.9	5.0	5.3	5.3	6.0	5.9	5.6
* ASP400 (APR 106)	4.4	6.2	4.8	5.0	6.9	6.2	6.1	4.1	5.5	6.9	5.9	5.5	5.6	4.7	6.0	6.2	5.6
* RIVIERA II	6.2	6.1	5.1	4.8	7.1	6.4	6.5	4.9	5.5	6.7	4.1	4.0	5.0	5.1	6.6	5.8	5.6
* OMNI	5.4	6.2	5.0	3.5	7.2	6.5	5.9	5.7	5.4	6.6	5.7	5.4	4.4	4.6	6.4	5.9	5.6
* VIVID	6.1	6.3	5.0	5.4	6.8	6.4	5.9	4.8	5.8	6.5	4.5	3.8	5.2	5.1	6.4	5.5	5.6
* BUCCANEER II (WVPB 92-4)	6.2	6.3	5.1	4.9	6.7	6.3	5.9	4.2	5.8	7.2	5.1	4.4	4.4	5.4	5.7	5.7	5.6
* ACADEMY (PC-93-1)	5.5	6.1	5.4	5.6	7.0	6.5	5.9	4.3	5.7	6.7	5.4	3.6	4.8	5.5	6.1	5.3	5.6
* OMEGA3 (ZPS-2DR-94)	4.8	6.3	4.0	4.4	7.0	6.5	6.3	5.7	5.9	7.0	5.1	4.7	4.6	4.7	6.2	6.1	5.6
* BLAZER III (PICK 928)	5.4	6.2	4.8	4.3	6.9	6.4	6.2	5.3	4.9	6.1	4.8	5.6	5.2	4.9	6.4	5.9	5.6
KOOS 93-6	5.1	6.2	5.1	5.0	6.8	6.4	5.9	5.0	5.5	6.8	5.1	4.5	5.0	5.2	5.9	5.9	5.6
* BRIGHTSTAR	5.1	6.3	4.8	4.2	6.7	6.5	6.2	5.0	5.6	6.3	5.8	4.3	4.7	5.0	6.8	6.0	5.6
* SR 4010 (SRX 4010)	5.7	6.6	5.0	5.3	7.0	6.4	6.1	4.4	6.1	6.0	5.6	3.8	4.7	4.8	6.1	5.7	5.6
* MORNING STAR	5.2	5.9	5.3	5.3	7.3	6.5	5.6	4.6	6.1	7.0	4.9	3.7	4.0	6.0	6.2	5.8	5.6

TABLE 1. (CONT'D)

MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
GROWN AT SIXTEEN LOCATIONS IN THE U.S. AND CANADA  
1998 DATA  
TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

NAME	AR1	IA1	IL1	IL2	KY1	MI1	NE1	NJ1	OK1	QE1	RI1	UB1	UB2	VA1	WA1	WA3	MEAN
MVF-4-1	5.4	5.9	5.0	4.8	6.7	6.5	6.3	4.7	5.7	6.4	5.2	4.3	5.4	5.3	5.9	5.7	5.6
WX3-93	5.2	6.4	5.1	4.5	6.8	6.5	5.9	5.3	5.6	6.7	4.9	4.8	4.4	5.0	6.4	5.7	5.6
* CUTTER	4.7	6.2	4.4	4.6	7.5	6.4	6.3	4.3	5.7	6.8	5.0	4.4	5.3	5.0	6.1	6.1	5.6
* WIZARD (MB 41)	6.6	6.4	4.1	4.5	7.4	6.5	6.1	5.0	5.8	7.2	4.1	4.3	3.9	4.6	6.4	5.8	5.5
* SPELL BOUND (WVPB-93-KFK)	5.2	6.4	4.9	5.0	7.1	6.5	6.2	4.4	5.7	6.8	5.3	3.8	4.4	4.7	6.2	5.9	5.5
* HEAD START (PICK PR 84-91)	5.2	5.8	4.5	5.0	7.0	6.4	6.2	4.7	5.5	6.2	4.7	5.5	5.2	4.4	6.4	5.8	5.5
* ROADRUNNER (EST-2ET)	5.3	6.2	4.4	4.7	7.0	6.4	5.6	5.4	5.7	6.5	4.3	5.3	4.5	4.7	6.7	5.6	5.5
* PRECISION	4.4	6.0	5.0	5.5	7.2	6.6	6.2	4.3	4.8	6.3	5.7	4.4	4.8	5.0	6.3	5.7	5.5
* IMAGINE	5.1	6.2	4.5	4.2	7.5	6.6	5.7	5.5	5.1	6.5	3.7	5.1	4.5	4.5	7.2	6.2	5.5
* R2 (ISI-R2)	5.8	6.2	5.0	4.0	7.2	6.3	5.6	4.6	5.0	6.3	5.6	4.8	5.2	5.0	6.2	5.4	5.5
* NOBILITY	5.6	6.3	5.0	5.3	7.0	6.3	5.7	4.3	6.0	6.8	4.3	4.1	5.0	4.7	6.2	5.5	5.5
* CITATION III (PST-2DGR)	5.5	5.9	4.0	5.6	7.0	6.4	5.9	5.5	5.4	6.5	3.9	4.8	4.0	4.5	7.0	6.1	5.5
APR 131	4.0	6.0	4.7	6.0	7.0	6.4	5.3	3.9	5.9	6.7	5.5	5.5	5.0	4.5	6.2	5.4	5.5
* CHAPARRAL (PST-2DLM)	6.3	6.2	3.7	5.2	7.2	6.6	5.8	5.6	5.1	6.2	4.0	3.8	4.6	4.3	7.0	6.3	5.5
* WIND DANCE (MB 46)	5.9	5.8	4.2	5.5	7.7	6.8	6.3	5.5	4.7	6.3	3.5	3.5	4.7	4.3	7.0	5.8	5.5
* ADVANTAGE	5.0	5.9	4.5	5.0	7.0	6.4	6.0	4.9	5.5	6.5	4.6	4.1	4.8	4.4	6.8	5.9	5.5
* QUICKSTART	5.4	6.2	4.7	5.5	6.8	6.5	5.6	4.3	5.1	6.8	4.6	4.7	4.8	5.1	6.1	4.7	5.4
WX3-91	4.7	5.9	4.7	5.3	6.8	6.4	5.6	4.6	5.7	6.6	4.7	4.4	5.3	4.9	6.0	5.5	5.4
CAS-LP23	6.0	6.3	4.5	4.6	6.9	6.6	5.8	4.8	5.5	6.6	4.1	3.7	4.0	4.8	6.7	5.8	5.4
* EXPRESS	4.8	6.4	4.5	5.5	7.3	6.4	5.6	4.0	5.6	6.7	5.1	3.9	4.1	5.1	5.9	5.8	5.4
APR 124	4.4	6.1	3.6	5.2	6.8	6.4	6.2	5.0	5.6	6.2	4.6	4.2	4.9	4.7	6.6	6.0	5.4
* PROTOCOL (KOOS 93-3)	5.9	6.2	4.0	5.1	6.9	6.5	5.1	4.4	5.3	6.5	4.1	5.1	4.5	5.0	6.1	5.6	5.4
* STALLION SELECT	5.0	6.3	4.2	4.5	6.8	6.4	5.3	4.6	6.0	6.7	5.0	3.5	4.5	5.7	6.2	5.6	5.4
* LEGACY II (LESCO-TWF)	4.4	5.9	3.9	5.7	7.1	6.5	5.2	5.0	5.7	6.5	4.2	4.7	4.7	4.9	6.4	5.4	5.4
* WILLIAMSBURG	5.8	5.8	4.7	4.8	6.5	6.5	5.4	3.6	6.0	6.7	4.1	4.9	4.4	5.5	5.6	5.7	5.4
APR 066	4.5	6.0	4.4	5.0	6.0	6.4	5.0	3.8	5.7	6.7	5.6	5.0	4.9	4.8	5.8	5.1	5.3
PST-2CB	5.8	6.3	4.4	4.1	7.2	6.4	5.5	4.9	4.7	6.7	3.5	4.2	4.3	4.9	6.1	5.3	5.3
* NAVAJO	4.7	5.9	4.8	3.5	6.3	6.4	6.1	4.3	5.0	6.8	4.8	4.2	4.0	5.4	6.1	5.7	5.2
* ELF	4.5	6.1	4.8	3.0	6.1	6.5	6.3	4.7	4.4	6.8	4.9	3.2	4.7	4.3	6.6	6.2	5.2
* STARDANCE (PST-2FE)	5.4	6.2	3.9	3.5	6.3	6.4	6.1	5.0	4.2	6.5	3.7	4.6	4.7	4.7	6.5	5.3	5.2
* EXCEL (MB 1-5)	5.3	6.4	3.4	3.2	7.0	6.6	6.3	4.7	4.6	6.8	3.3	3.8	3.8	4.1	6.8	5.9	5.1
BAR ER 5813	5.3	6.0	4.1	4.2	6.1	6.4	6.2	4.6	5.0	6.4	4.0	2.8	4.3	4.8	5.9	5.4	5.1
WVPB-PR-C-2	5.0	6.0	4.2	3.7	6.3	6.5	5.8	4.0	5.2	6.7	4.4	2.9	4.3	5.0	5.8	5.6	5.1
* DANCER	5.3	6.2	4.8	3.8	5.8	6.4	5.3	3.6	4.3	6.4	4.9	3.3	4.4	4.7	6.1	5.4	5.0
* NIGHT HAWK	4.7	6.2	4.1	2.4	6.5	6.4	5.3	4.8	5.4	6.5	4.4	3.0	3.5	4.8	6.3	6.0	5.0
* PEGASUS	5.2	6.0	4.0	3.7	6.3	6.5	5.2	4.2	5.6	6.5	4.3	2.8	3.6	4.7	6.1	5.6	5.0
* SATURN	5.1	5.8	4.9	2.8	6.0	6.5	5.8	3.9	5.7	6.3	3.6	3.4	4.0	4.8	5.9	5.7	5.0
* NINE-O-ONE	5.5	5.8	3.6	3.2	6.2	6.4	5.3	4.8	5.0	6.4	3.0	3.9	3.7	4.3	6.1	5.8	4.9
DSV NA 9402	4.4	5.6	4.3	3.6	5.3	6.7	4.3	2.6	4.5	6.4	4.5	2.5	3.5	4.5	5.5	5.3	4.6
DSV NA 9401	4.4	5.9	4.1	3.5	5.3	6.5	4.3	2.5	4.6	6.3	4.0	2.3	3.5	4.3	5.4	5.0	4.5
DLP 1305	3.8	5.9	3.1	1.7	5.3	6.4	5.6	3.5	4.9	6.7	3.0	2.8	2.6	4.7	5.3	5.1	4.4
* PENNFINE	4.4	5.5	4.2	2.0	4.9	6.1	4.7	2.9	4.9	6.3	2.4	2.9	2.9	4.7	5.6	4.7	4.3
* FIGARO	4.1	5.7	3.5	1.9	4.7	6.4	4.2	2.5	4.8	6.7	3.6	2.9	2.9	4.3	5.3	5.2	4.3
* LINN	2.2	4.3	2.6	1.3	1.5	6.3	2.3	1.2	4.0	5.4	1.4	2.3	1.8	3.2	3.8	3.4	2.9
LSD VALUE	1.5	0.6	0.9	1.1	0.5	0.2	0.7	0.8	1.5	1.1	0.9	1.6	1.0	0.8	0.5	0.4	0.2
C.V. (%)	17.1	5.7	12.3	14.1	4.6	2.1	7.2	10.4	17.2	10.6	12.0	23.4	12.7	10.7	4.6	4.5	11.0

\* COMMERCIALY AVAILABLE IN THE USA IN 1999.

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 PERENNIAL RYEGRASS CULTIVARS FOR EACH  
 MONTH GROWN AT SIXTEEN LOCATIONS IN THE U.S. AND CANADA 1/  
 1998 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
PALMER III (LRF-94-MPRH)	6.0	6.3	6.3	6.6	6.4	6.5	5.8	5.6	5.6	5.9	5.7	5.8	6.0
SECRETARIAT (RPBD)	6.0	5.3	6.3	6.6	6.4	6.6	6.2	5.4	5.5	5.7	5.2	5.5	6.0
BRIGHTSTAR II (PST-2M3)	6.0	5.7	7.4	7.1	6.4	6.4	5.7	5.1	5.5	5.8	5.6	5.3	6.0
CALYPSO II	6.3	6.3	6.0	6.8	6.4	6.2	5.9	5.4	5.6	5.7	5.5	5.0	5.9
PENNANT II (MB 42)	6.0	5.0	6.5	6.9	6.4	6.4	5.7	5.4	5.6	5.6	5.2	5.2	5.9
MONTEREY (J-1706)	5.3	6.3	5.2	6.3	6.3	6.4	5.9	5.6	5.5	5.9	5.4	5.7	5.9
ACCENT	5.3	5.0	6.8	6.5	6.4	6.3	6.0	5.4	5.4	5.5	5.4	5.5	5.9
RADIANT (MB 44)	5.0	4.3	6.8	7.0	6.6	6.4	5.5	5.2	5.4	5.4	5.1	5.3	5.9
CATALINA (PST-GH-94)	5.0	5.3	6.2	6.7	6.3	6.3	5.8	5.2	5.5	5.5	5.6	5.3	5.9
LAREDO	6.0	6.3	5.8	6.3	5.9	6.2	5.9	5.5	5.7	5.9	6.0	5.7	5.9
PREMIER II (BAR USA 94-II)	5.3	5.7	6.6	6.5	6.3	6.5	5.9	5.1	5.4	5.6	5.2	5.0	5.8
CADDIESHACK (MED 5071)	4.3	5.0	6.4	6.5	6.4	6.1	5.6	5.3	5.5	5.7	5.4	5.3	5.8
SONATA (PST-2R3)	5.0	5.0	5.8	6.7	6.4	6.0	5.6	5.3	5.5	5.6	5.5	5.0	5.8
EDGE	5.7	6.7	6.2	6.0	6.1	6.2	5.9	5.5	5.6	5.7	5.4	5.8	5.8
SR 4400 (SRX 4400)	5.7	5.7	6.0	6.2	6.3	6.4	6.0	5.4	5.4	5.4	5.1	5.3	5.8
BLACKHAWK (TMI-EXFLP94)	5.7	5.3	6.1	6.1	6.2	6.2	5.9	5.5	5.6	5.5	5.2	5.5	5.8
PRIZM	6.0	6.3	6.2	6.5	6.1	6.3	5.8	5.4	5.3	5.4	5.1	5.7	5.8
SR 4200	6.0	5.7	6.2	6.3	6.2	6.3	6.0	5.2	5.4	5.4	5.0	5.0	5.8
ACHIEVER	4.7	5.7	5.8	6.0	5.8	6.2	5.9	5.7	5.7	5.5	5.4	5.3	5.8
PANTHER (ZPS-PR1)	5.7	5.7	5.7	6.3	6.2	6.2	5.9	5.4	5.4	5.5	5.2	5.7	5.8
PRELUDE III (LRF-94-B6)	5.0	5.0	6.7	6.7	6.1	6.0	5.8	5.1	5.4	5.7	5.2	5.2	5.8
LINE DRIVE (MB 47)	5.0	5.7	5.8	6.5	6.0	6.1	5.4	5.2	5.5	6.0	5.3	5.7	5.8
ESQUIRE	4.7	5.3	5.8	6.4	6.1	6.2	5.8	5.3	5.5	5.3	5.3	4.8	5.7
ASSURE	5.7	6.0	6.0	6.0	5.9	6.2	5.9	5.6	5.5	5.4	5.3	5.2	5.7
DERBY SUPREME (ISI-MHB)	5.7	6.0	6.0	6.3	6.3	6.1	5.7	5.3	5.3	5.4	5.0	5.3	5.7
SUNSHINE (PICK LP 102-92)	5.3	5.7	6.5	6.5	6.1	6.1	5.5	5.2	5.4	5.5	5.0	5.3	5.7
MANHATTAN 3	5.3	5.0	5.9	6.4	6.2	6.1	5.6	5.2	5.3	5.6	5.1	5.7	5.7
TOP GUN (J-1703)	4.7	5.0	6.3	6.5	6.2	6.2	5.9	5.2	5.3	5.3	5.0	4.7	5.7
LRF-94-C8	5.0	5.3	7.2	6.6	6.1	6.1	5.5	5.0	5.4	5.5	4.9	5.3	5.7
MARDIGRAS (ZPS-2NV)	5.7	6.0	5.8	6.4	6.1	6.1	5.5	5.3	5.5	5.4	5.0	5.3	5.7
PASSPORT (PST-2FF)	5.7	5.3	6.3	6.4	6.1	6.0	5.6	5.3	5.5	5.3	5.0	5.2	5.7
TOP HAT	5.7	6.0	6.3	6.4	6.0	6.3	5.8	5.2	5.3	5.2	4.9	5.5	5.7
WIND STAR (PST-28M)	5.3	5.0	5.8	6.1	6.0	6.3	5.8	5.4	5.3	5.3	5.2	5.0	5.7
MAJESTY (MB 43)	5.7	5.7	6.3	6.5	6.0	6.0	5.5	5.2	5.4	5.3	5.0	4.8	5.7
STALLION SUPREME (PSI-E-1)	5.3	5.0	6.5	6.1	5.9	6.0	5.8	5.4	5.4	5.3	5.3	5.0	5.7
REPELL III (LRF-94-C7)	5.7	5.0	6.8	6.5	6.1	6.1	5.6	5.1	5.1	5.5	5.1	5.3	5.7
SATURN II (ZPS-2ST)	5.3	5.7	6.3	6.2	6.0	6.0	5.5	5.3	5.3	5.4	5.2	5.5	5.6
ASCEND (MB 45)	5.0	5.0	6.0	6.6	6.2	6.2	5.3	4.9	5.2	5.5	4.9	5.2	5.6
DIVINE	4.3	4.3	5.5	6.2	6.1	6.1	5.4	5.3	5.4	5.4	5.0	5.3	5.6
PS-D-9	5.0	5.7	5.8	6.1	5.8	5.9	5.7	5.2	5.4	5.6	5.4	5.2	5.6
ASP400 (APR 106)	6.0	6.3	5.5	6.1	5.8	5.9	5.6	5.4	5.4	5.4	5.6	5.0	5.6
RIVIERA II	5.0	5.0	6.3	6.3	5.9	6.1	5.8	5.1	5.3	5.3	4.9	4.8	5.6
OMNI	5.0	5.0	6.0	6.1	6.2	6.1	5.6	5.1	5.3	5.2	4.9	4.8	5.6
VIVID	5.0	5.0	5.8	6.3	5.9	6.1	5.6	5.1	5.4	5.2	5.0	5.2	5.6
BUCCANEER II (WVPB 92-4)	5.0	5.7	6.3	5.9	5.9	5.9	5.7	5.4	5.3	5.2	5.1	5.0	5.6
ACADEMY (PC-93-1)	4.7	4.7	6.1	6.1	5.8	6.1	5.7	5.2	5.2	5.4	5.2	4.8	5.6
OMEGA3 (ZPS-2DR-94)	5.3	5.3	5.7	6.1	6.0	6.2	5.7	5.2	5.2	5.1	5.0	5.5	5.6
BLAZER III (PICK 928)	5.0	5.3	6.3	6.3	6.0	5.9	5.4	5.1	5.2	5.3	5.3	5.3	5.6
KOOS 93-6	5.0	5.3	5.5	6.1	6.1	6.0	5.6	5.1	5.2	5.5	5.2	5.3	5.6
BRIGHTSTAR	5.3	5.0	6.2	6.4	6.3	6.2	5.5	4.9	4.9	5.1	4.8	5.3	5.6
SR 4010 (SRX 4010)	5.0	5.0	5.7	6.1	6.0	5.9	5.5	5.2	5.3	5.4	5.1	5.0	5.6
MORNING STAR	5.3	5.0	6.3	6.0	5.8	5.9	5.8	5.2	5.4	5.3	4.9	5.7	5.6

TABLE 2. MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS FOR EACH MONTH GROWN AT SIXTEEN LOCATIONS IN THE U.S. AND CANADA 1998 DATA  
TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF; MONTHS

NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
MVF-4-1	5.3	5.3	6.4	6.1	5.8	6.0	5.6	5.1	5.3	5.2	5.1	5.0	5.6
WX3-93	5.0	4.7	5.5	6.4	6.1	6.1	5.4	5.1	5.2	5.1	4.9	5.5	5.6
CUTTER	5.7	6.0	5.8	6.1	5.9	5.9	5.6	5.2	5.3	5.4	5.0	5.2	5.6
WIZARD (MB 41)	5.3	5.3	6.1	6.2	5.8	5.7	5.3	5.3	5.4	5.3	4.9	5.8	5.5
SPELL BOUND (WVPB-93-KFK)	6.0	5.3	6.3	6.1	5.9	6.1	5.6	5.0	5.2	5.1	4.9	5.3	5.5
HEAD START (PICK PR 84-91)	5.3	4.7	5.4	6.3	5.9	6.1	5.4	5.0	5.3	5.2	5.1	4.8	5.5
ROADRUNNER (PST-2ET)	4.7	4.3	6.2	6.1	5.8	6.1	5.4	5.1	5.2	5.2	4.9	5.5	5.5
PRECISION	6.0	5.3	5.3	5.9	5.8	5.8	5.4	5.1	5.4	5.4	5.3	4.7	5.5
IMAGINE	4.3	5.0	6.4	6.4	6.2	5.8	5.4	4.9	5.2	5.3	4.8	4.8	5.5
R2 (ISI-R2)	4.7	4.7	5.8	5.7	5.8	6.0	5.6	5.4	5.3	5.1	4.9	4.2	5.5
NOBILITY	5.3	5.3	5.5	6.0	5.8	6.0	5.5	5.1	5.2	5.2	5.1	5.0	5.5
CITATION III (PST-2DGR)	5.7	5.3	6.3	6.4	5.8	5.9	5.4	5.0	5.1	5.3	5.1	5.2	5.5
APR 131	5.0	5.3	5.0	5.7	5.6	5.5	5.5	5.4	5.5	5.6	5.7	5.0	5.5
CHAPARRAL (PST-2DLM)	5.0	5.0	6.4	6.3	6.1	5.9	5.3	4.8	5.1	5.2	4.8	5.2	5.5
WIND DANCE (MB 46)	4.7	4.7	6.0	6.5	6.0	5.7	5.3	4.8	5.1	5.4	4.7	5.2	5.5
ADVANTAGE	5.3	5.7	5.3	6.3	6.1	5.9	5.4	4.8	5.1	5.2	4.8	5.0	5.5
EXEPRESS	5.0	6.0	5.5	5.9	5.7	5.9	5.4	5.0	5.4	5.2	4.9	4.8	5.4
QUICKSTART	4.0	4.0	5.8	6.0	5.5	6.0	5.6	4.9	5.1	5.2	5.1	4.7	5.4
WX3-91	4.7	5.3	5.5	6.0	5.8	6.0	5.4	5.0	5.1	5.1	5.3	5.2	5.4
CAS-LP23	5.0	6.0	6.4	6.2	5.7	5.8	5.4	4.8	5.2	5.1	4.7	5.3	5.4
APR 124	5.7	6.0	5.8	6.0	5.8	5.8	5.2	4.9	5.2	5.2	5.1	5.3	5.4
PROTOCOL (KOOS 93-3)	5.3	5.0	5.8	5.9	5.6	5.7	5.3	5.0	5.3	5.2	5.2	5.5	5.4
STALLION SELECT	5.7	5.3	6.2	6.0	5.5	5.6	5.4	5.0	5.2	5.2	5.0	5.3	5.4
LEGACY II (LESCO-TWF)	4.7	4.3	5.7	6.1	5.8	5.9	5.2	4.8	5.1	5.2	5.2	4.8	5.4
WILLIAMSBURG	5.3	5.3	5.7	5.8	5.6	5.8	5.6	5.0	5.0	5.0	5.2	5.0	5.4
APR 066	4.7	5.0	4.9	5.6	5.2	5.6	5.4	5.1	5.1	5.2	5.5	4.8	5.3
PST-2CB	5.0	5.0	5.9	5.7	5.3	5.4	5.3	5.0	5.3	5.2	4.7	4.3	5.3
NAVAJO	4.7	5.0	5.8	6.0	5.7	5.7	5.3	4.8	4.8	4.9	4.4	5.2	5.2
ELF	5.7	5.7	5.7	6.0	5.8	5.7	5.4	4.5	4.7	4.7	4.2	5.0	5.2
STARDANCE (PST-2FE)	4.0	4.7	5.6	5.9	5.6	5.7	5.2	4.5	4.8	4.9	4.5	4.5	5.2
EXCEL (MB 1-5)	4.7	5.0	6.0	6.2	5.8	5.5	4.9	4.4	4.7	4.8	4.2	4.5	5.1
BAR ER 5813	5.0	4.3	5.8	6.0	5.5	5.6	5.2	4.5	4.6	4.6	4.3	4.2	5.1
WVEB-PR-C-2	5.0	5.0	5.8	5.8	5.4	5.3	5.2	4.6	4.8	4.8	4.5	5.0	5.1
DANCER	4.7	5.0	5.8	5.8	5.7	5.5	5.1	4.4	4.6	4.6	4.3	4.3	5.0
NIGHT HAWK	5.0	5.7	6.2	5.8	5.6	5.4	5.0	4.3	4.7	4.7	4.1	5.2	5.0
PEGASUS	5.3	5.3	5.7	5.5	5.2	5.5	5.0	4.5	4.7	4.8	4.6	5.2	5.0
SATURN	6.0	5.3	6.2	5.5	5.2	5.3	5.0	4.6	4.8	4.6	4.4	5.3	5.0
NINE-O-ONE	5.3	5.7	5.9	5.6	5.2	5.3	4.9	4.5	4.7	4.5	4.4	5.0	4.9
DSV NA 9402	4.7	5.0	5.3	5.3	5.1	4.8	4.6	4.0	4.2	4.3	4.2	4.7	4.6
DSV NA 9401	5.3	5.7	5.3	5.1	4.7	4.6	4.5	3.9	4.3	4.3	4.0	4.5	4.5
DLP 1305	4.7	4.7	5.1	5.3	5.1	4.9	4.3	3.9	3.8	3.9	3.7	4.3	4.4
PENNFINE	4.7	4.3	5.2	4.5	4.3	4.7	4.5	4.0	4.1	4.1	4.0	4.3	4.3
FIGARO	5.3	4.7	5.0	4.9	4.6	4.4	4.4	3.8	3.9	4.2	3.9	4.7	4.3
LINN	3.3	3.0	2.6	3.1	2.8	3.0	2.8	2.8	3.0	3.1	3.6	3.7	2.9
LSD VALUE	0.8	1.2	1.0	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.8	1.2	0.4
C.V. (%)	9.5	13.6	20.7	20.8	21.6	23.1	25.0	32.8	32.7	31.8	29.4	20.7	19.5

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 3.

 RANKING OF MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 GROWN AT SIXTEEN LOCATIONS IN THE U.S. AND CANADA 1/  
 1998 DATA

QUALITY RANKINGS; 1=HIGHEST MEAN: STATE LOCATIONS REPORTING 2/

NAME	AR1	IA1	IL1	IL2	KY1	MI1	NE1	NJ1	OK1	QE1	RI1	UB1	UB2	VA1	WA1	WA3	MEAN
PALMER III (LRF-94-MPRH)	40.0	62.0	5.0	25.5	29.0	24.5	42.5	2.0	39.0	7.5	1.0	17.5	49.5	26.5	14.0	1.0	1
SECRETARIAT (RPED)	9.5	1.5	26.5	58.5	18.5	24.5	1.0	10.5	44.0	3.5	4.0	7.5	63.5	11.0	46.0	24.5	2
BRIGHTSTAR II (EST-2M3)	8.0	86.0	81.5	34.5	6.0	1.0	72.5	1.0	17.5	54.5	35.5	10.5	13.5	57.0	2.0	3.0	3
CALYPSO II	56.0	86.0	26.5	1.0	25.0	16.5	2.0	13.0	58.0	90.0	22.5	1.0	11.5	63.5	21.5	2.0	4
PENNANT II (MB 42)	1.0	36.5	62.0	6.0	4.0	24.5	5.5	5.0	67.0	18.0	65.5	36.0	63.5	63.5	9.0	13.0	5
MONTREY (J-1706)	50.5	5.0	6.5	14.5	25.0	52.5	31.5	18.5	87.5	43.5	2.0	42.5	2.5	33.0	29.0	6.0	6
ACCENT	3.0	30.5	11.0	22.0	52.0	38.5	19.0	48.0	6.5	80.5	24.0	12.0	5.5	11.0	57.0	39.0	7
RADIANT (MB 44)	4.0	59.5	40.0	7.5	5.0	6.0	29.0	16.0	35.0	51.0	69.5	46.0	55.0	76.5	1.0	29.5	8
CATALINA (PST-GH-94)	11.5	42.5	57.0	7.5	68.5	11.0	19.0	6.0	30.5	77.0	33.5	22.0	2.5	71.5	25.5	42.5	9
LAREDO	62.0	42.5	48.0	2.0	57.5	52.5	49.5	35.0	10.5	26.5	54.0	3.5	1.0	79.0	36.0	4.0	10
PREMIER II (BAR USA 94-II)	18.0	15.5	44.5	67.0	15.5	16.5	9.5	4.0	65.0	14.0	54.0	27.0	13.5	26.5	36.0	7.0	11
CADDIESHACK (MED 5071)	13.0	20.5	71.0	34.5	29.0	24.5	42.5	32.5	13.5	80.5	9.5	7.5	5.5	33.0	49.0	60.0	12
SONATA (PST-2R3)	66.5	20.5	1.0	3.0	47.0	24.5	12.0	44.5	82.0	10.5	40.0	15.5	8.0	33.0	36.0	74.0	13
EDGE	38.5	12.0	16.5	4.5	18.5	24.5	67.0	51.5	19.0	32.0	18.0	64.0	19.5	3.0	46.0	11.5	14
SR 4400 (SRX 4400)	47.0	5.0	2.0	42.5	36.5	90.0	9.5	69.0	1.0	26.5	20.5	32.0	23.0	4.0	82.5	39.0	15
BLACKHAWK (TMI-EXFLP94)	23.0	8.5	3.5	48.5	15.5	38.5	67.0	38.0	2.0	43.5	17.0	68.5	19.5	19.0	75.5	27.5	16
PRIZM	19.0	68.0	33.5	58.5	15.5	24.5	5.5	28.0	25.5	14.0	35.5	36.0	37.5	57.0	29.0	9.0	17
SR 4200	31.5	68.0	9.0	58.5	32.0	52.5	42.5	32.5	25.5	18.0	4.0	64.0	43.0	7.0	33.5	21.0	18
ACHIEVER	23.0	12.0	29.0	10.0	42.5	67.0	42.5	66.5	10.5	51.0	26.5	32.0	10.0	14.0	62.0	63.5	19
PANTHER (ZPS-PR1)	75.0	50.0	9.0	70.5	42.5	67.0	14.0	3.0	35.0	43.5	11.0	49.0	23.0	63.5	25.5	5.0	20
PRELUDE III (LRF-94-B6)	25.5	93.0	77.5	18.5	1.0	6.0	57.0	8.0	69.0	26.5	62.5	22.0	30.5	39.0	6.5	56.0	21
LINE DRIVE (MB 47)	42.0	5.0	32.0	32.0	11.5	38.5	19.0	10.5	6.5	51.0	32.0	67.0	59.0	79.0	13.0	24.5	22
ESQUIRE	20.5	56.5	50.0	54.0	11.5	11.0	19.0	22.0	20.0	60.5	40.0	17.5	29.0	59.0	53.0	70.0	23
ASSURE	9.5	30.5	12.5	68.5	47.0	38.5	42.5	70.0	15.5	84.5	33.5	2.0	19.5	44.5	71.0	24.5	24
DERBY SUPREME (ISI-MHB)	72.0	26.0	16.5	54.0	32.0	82.0	5.5	51.5	51.0	21.0	4.0	42.5	45.0	39.0	53.0	16.0	25
SUNSHINE (PICK 1P 102-92)	36.5	36.5	66.5	30.0	21.5	52.5	12.0	16.0	17.5	90.0	40.0	40.0	59.0	33.0	19.5	45.0	26
MANHATTAN 3	77.0	12.0	21.5	18.5	25.0	38.5	70.5	12.0	44.0	57.0	51.5	66.0	9.0	48.0	12.0	34.5	27
TOP GUN (J-1703)	23.0	81.0	44.5	14.5	21.5	52.5	57.0	34.0	70.5	71.0	40.0	40.0	4.0	14.0	53.0	50.0	28
LRF-94-C8	5.5	36.5	85.0	22.0	3.0	2.5	59.5	16.0	67.0	14.0	85.0	75.5	34.0	48.0	4.5	48.5	29
MARDIGRAS (ZPS-2NV)	59.0	26.0	71.0	11.5	40.0	38.5	3.0	36.5	72.0	7.5	40.0	59.5	34.0	33.0	29.0	18.5	30
PASSPORT (PST-2FF)	31.5	68.0	62.0	25.5	32.0	38.5	8.0	36.5	63.5	5.0	62.5	40.0	63.5	7.0	33.5	56.0	31
TOP HAT	14.0	68.0	40.0	58.5	9.0	16.5	19.0	62.5	22.0	95.0	15.5	72.0	16.0	22.0	62.0	11.5	32
WIND STAR (PST-28M)	66.5	20.5	3.5	45.5	78.0	82.0	62.0	31.0	63.5	7.5	40.0	24.5	23.0	16.5	53.0	68.0	33
MAJESTY (MB 43)	2.0	59.5	51.0	40.0	11.5	24.5	5.5	24.5	59.0	14.0	90.0	46.0	49.5	85.5	15.5	52.5	34
STALLION SUPREME (PSI-E-1)	7.0	68.0	36.0	14.5	47.0	90.0	64.0	81.5	35.0	71.0	19.0	19.5	59.0	19.0	57.0	60.0	35
REPELL III (LRF-94-C7)	34.0	86.0	87.0	9.0	2.0	11.0	35.5	8.0	51.0	93.5	82.0	59.5	69.0	26.5	4.5	9.0	36
SATURN II (ZPS-2ST)	28.5	20.5	54.5	56.0	61.5	52.5	19.0	50.0	51.0	26.5	26.5	36.0	59.0	22.0	46.0	41.0	37
ASCEND (MB 45)	36.5	20.5	60.0	14.5	8.0	4.0	35.5	8.0	77.0	14.0	91.0	56.5	55.0	85.5	6.5	34.5	38
DIVINE	78.5	3.0	77.5	51.0	25.0	38.5	25.5	20.5	3.0	3.5	50.0	46.0	49.5	71.5	23.5	86.5	39
PS-D-9	42.0	50.0	58.5	40.0	42.5	82.0	62.0	58.5	22.0	65.5	45.5	22.0	19.5	14.0	78.5	42.5	40
ASP400 (APR 106)	90.0	42.5	40.0	45.5	63.5	95.0	48.0	83.0	55.0	18.0	6.0	7.5	7.0	71.5	78.5	14.0	41
RIVIERA II	15.0	55.0	12.5	62.0	42.5	67.0	12.0	49.0	54.0	43.5	75.5	68.5	34.0	26.5	29.0	45.0	42
OMNI	50.5	50.0	26.5	86.0	36.5	52.5	54.0	14.0	61.0	51.0	8.0	10.5	74.5	79.0	40.0	34.5	43
VIVID	17.0	20.5	26.5	29.0	71.0	67.0	54.0	55.0	25.5	60.5	64.0	75.5	27.0	22.0	43.0	78.0	44
BUCCANEER II (WVPB 92-4)	16.0	20.5	14.5	54.0	76.0	92.0	51.5	80.0	22.0	1.0	28.5	51.5	74.5	9.0	89.0	65.5	45
ACADEMY (PC-93-1)	44.5	56.5	6.5	18.5	57.5	52.5	51.5	75.5	30.5	43.5	20.5	81.0	43.0	5.0	67.0	85.0	46
OMEGA3 (ZPS-2DR-94)	78.5	20.5	85.0	73.0	52.0	38.5	19.0	18.5	15.5	7.5	30.0	32.0	59.0	71.5	53.0	20.0	47
BLAZER III (PICK 928)	50.5	36.5	33.5	74.0	65.5	67.0	35.5	29.0	81.0	92.0	51.5	3.5	27.0	48.0	40.0	34.5	48
KOOS 93-6	69.5	50.0	14.5	51.0	68.5	82.0	59.5	40.5	51.0	26.5	31.0	44.0	34.0	19.0	85.5	34.5	49
BRIGHTSTAR	69.5	30.5	36.0	75.5	76.0	38.5	29.0	44.5	42.0	77.0	7.0	55.0	55.0	33.0	17.5	24.5	50
SR 4010 (SRX 4010)	35.0	1.5	23.0	36.5	61.5	82.0	46.5	73.0	4.0	93.5	12.5	75.5	49.5	53.0	75.5	63.5	51
MORNING STAR	64.0	78.0	9.0	36.5	25.0	38.5	75.0	66.5	5.0	10.5	48.0	79.5	85.0	1.0	62.0	45.0	52

TABLE 3. (CONT'D)

 RANKING OF MEAN TURFGRASS QUALITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
 GROWN AT SIXTEEN LOCATIONS IN THE U.S. AND CANADA  
 1998 DATA

QUALITY RANKINGS; 1=HIGHEST MEAN: STATE LOCATIONS REPORTING

NAME	AR1	IA1	IL1	IL2	KY1	MI1	NE1	NJ1	OK1	QE1	RI1	UB1	UB2	VA1	WA1	WA3	MEAN
MVF-4-1	50.5	75.0	24.0	62.0	76.0	38.5	19.0	58.5	39.0	71.0	25.0	54.0	11.5	16.5	85.5	60.0	53
WX3-93	62.0	8.5	18.0	72.0	68.5	52.5	54.0	30.0	44.0	36.0	49.0	27.0	74.5	39.0	40.0	68.0	54
CUTTER	80.0	50.0	64.5	65.5	15.5	67.0	19.0	78.5	30.5	21.0	40.0	49.0	16.0	39.0	75.5	18.5	55
WIZARD (MB 41)	5.5	12.0	77.5	70.5	20.0	52.5	39.0	43.0	25.5	2.0	75.5	53.0	86.0	76.5	40.0	47.0	56
SPELL BOUND (WVEB-93-KFK)	59.0	12.0	30.5	51.0	47.0	24.5	35.5	71.0	30.5	32.0	22.5	73.0	71.5	63.5	62.0	31.0	57
HEAD START (PICK PR 84-91)	62.0	86.0	58.5	45.5	57.5	82.0	31.5	58.5	56.5	87.5	57.0	7.5	27.0	87.5	40.0	52.5	58
ROADRUNNER (PST-2ET)	53.5	50.0	64.5	64.0	52.0	67.0	79.5	27.0	39.0	60.5	71.0	13.0	69.0	71.5	19.5	74.0	59
PRECISION	90.0	68.0	19.5	25.5	36.5	16.5	35.5	78.5	85.0	84.5	9.5	49.0	40.5	39.0	49.0	60.0	60
IMAGINE	68.0	50.0	52.5	77.0	11.5	11.0	70.5	23.0	74.5	65.5	84.0	15.5	66.5	81.0	3.0	16.0	61
R2 (ISI-R2)	28.5	50.0	21.5	79.0	36.5	93.5	77.5	64.0	79.0	77.0	14.0	27.0	25.0	42.5	57.0	81.5	62
NOBILITY	38.5	30.5	19.5	32.0	57.5	93.5	72.5	75.5	8.0	32.0	68.0	62.0	30.5	71.5	62.0	78.0	63
CITATION III (PST-2DGR)	42.0	78.0	83.0	18.5	57.5	67.0	57.0	26.0	61.0	60.5	81.0	29.0	81.5	83.0	9.0	22.0	64
APR 131	94.0	68.0	44.5	4.5	52.0	67.0	86.5	86.0	13.5	36.0	15.5	5.0	34.0	83.0	62.0	84.0	65
CHAPARRAL (PST-2DLM)	11.5	42.5	90.0	40.0	36.5	11.0	67.0	20.5	74.5	90.0	78.5	78.0	63.5	89.5	11.0	9.0	66
WIND DANCE (MB 46)	25.5	90.5	71.0	28.0	7.0	2.5	25.5	24.5	89.0	80.5	88.0	82.5	49.5	91.5	9.0	52.5	67
ADVANTAGE	74.0	81.0	54.5	48.5	52.0	67.0	49.5	46.5	56.5	65.5	58.5	64.0	43.0	87.5	15.5	34.5	68
QUICKSTART	47.0	42.5	48.0	22.0	73.0	24.5	75.0	75.5	73.0	26.5	60.0	32.0	40.5	26.5	67.0	95.0	69
WX3-91	82.0	81.0	48.0	32.0	73.0	67.0	79.5	66.5	30.5	54.5	56.0	51.5	16.0	44.5	80.0	78.0	70
CAS-LP23	20.5	30.5	52.5	65.5	63.5	11.0	62.0	53.0	51.0	51.0	77.0	79.5	83.5	53.0	21.5	48.5	71
EXPRESS	76.0	7.0	56.0	25.5	29.0	82.0	77.5	85.0	46.0	43.5	28.5	70.5	80.0	26.5	82.5	56.0	72
APR 124	86.0	59.5	91.5	38.0	73.0	67.0	35.5	40.5	47.5	87.5	58.5	59.5	39.0	63.5	23.5	29.5	73
PROTOCOL (KOOS 93-3)	27.0	36.5	81.5	42.5	65.5	38.5	90.0	72.0	67.0	65.5	73.5	14.0	66.5	42.5	71.0	71.0	74
STALLION SELECT	72.0	30.5	71.0	68.5	68.5	82.0	83.5	62.5	10.5	36.0	44.0	82.5	69.0	2.0	62.0	74.0	75
LEGACY II (LESCO-TWF)	87.0	75.0	88.5	11.5	47.0	38.5	88.5	40.5	39.0	65.5	72.0	32.0	49.5	48.0	44.0	81.5	76
WILLIAMSBURG	31.5	86.0	44.5	62.0	79.0	52.5	82.0	89.0	10.5	43.5	73.5	24.5	71.5	7.0	91.0	65.5	77
APR 066	84.0	68.0	66.5	45.5	88.5	82.0	91.0	88.0	30.5	36.0	12.5	19.5	37.5	53.0	87.5	92.0	78
PST-2CB	31.5	26.0	62.0	78.0	36.5	67.0	81.0	46.5	87.5	36.0	89.0	59.5	77.5	48.0	71.0	86.5	79
NAVAJO	82.0	75.0	40.0	84.0	82.0	82.0	46.5	75.5	77.0	26.5	54.0	56.5	81.5	11.0	67.0	68.0	80
ELF	85.0	59.5	40.0	90.0	86.5	38.5	25.5	58.5	93.0	21.0	45.5	86.0	49.5	89.5	29.0	16.0	81
STARDANCE (PST-2FE)	47.0	50.0	88.5	86.0	83.5	82.0	42.5	40.5	95.0	65.5	83.0	38.0	49.5	63.5	32.0	88.0	82
EXCEL (MB 1-5)	53.5	15.5	94.0	88.5	57.5	11.0	25.5	61.0	91.0	26.5	92.0	75.5	87.0	95.0	17.5	39.0	83
BAR ER 5813	56.0	68.0	77.5	75.5	86.5	67.0	29.0	66.5	80.0	74.5	78.5	91.0	79.0	57.0	82.5	80.0	84
WVPB-PR-C-2	72.0	68.0	71.0	81.5	81.0	24.5	67.0	84.0	70.5	43.5	67.0	88.5	77.5	33.0	87.5	74.0	85
DANCER	56.0	36.5	36.0	80.0	90.0	82.0	83.5	90.0	94.0	71.0	47.0	85.0	74.5	63.5	75.5	83.0	86
NIGHT HAWK	82.0	42.5	77.5	92.0	80.0	67.0	85.0	55.0	61.0	57.0	65.5	87.0	90.5	53.0	49.0	27.5	87
PEGASUS	59.0	68.0	85.0	81.5	83.5	52.5	88.5	81.5	47.5	57.0	69.5	92.5	89.0	71.5	71.0	74.0	88
SATURN	65.0	90.5	30.5	91.0	88.5	38.5	67.0	87.0	39.0	84.5	86.5	84.0	83.5	53.0	82.5	60.0	89
NINE-O-ONE	44.5	89.0	91.5	88.5	85.0	67.0	86.5	55.0	77.0	74.5	94.0	70.5	88.0	91.5	71.0	52.5	90
DSV NA 9402	90.0	94.0	68.0	83.0	91.5	6.0	94.0	93.0	92.0	71.0	61.0	94.0	90.5	83.0	92.0	89.0	91
DSV NA 9401	90.0	78.0	77.5	86.0	91.5	24.5	93.0	95.0	90.0	84.5	80.0	95.5	92.0	93.5	93.0	93.0	92
DLP 1305	95.0	83.0	95.0	95.0	93.0	67.0	75.0	91.0	84.0	43.5	93.0	92.5	95.0	63.5	94.5	91.0	93
PENNFINE	90.0	95.0	74.0	93.0	94.0	96.0	92.0	92.0	83.0	80.5	95.0	88.5	93.5	71.5	90.0	94.0	94
FIGARO	93.0	92.0	93.0	94.0	95.0	82.0	95.0	94.0	86.0	43.5	86.5	90.0	93.5	93.5	94.5	90.0	95
LINN	96.0	96.0	96.0	96.0	96.0	90.0	96.0	96.0	96.0	96.0	96.0	95.5	96.0	96.0	96.0	96.0	96

1/ THIS TABLE CONTAINS NO STATISTICAL VALUES (LSD VALUES) THEREFORE IT SHOULD ONLY BE USED TO DETERMINE THE GENERAL PERFORMANCE OF AN ENTRY OR ENTRIES ACROSS SEVERAL LOCATIONS OR REGIONS. TO ASSESS STATISTICAL DIFFERENCES AMONG ENTRIES, REFER TO THE MEANS AND LSD VALUES FOUND IN TABLE 1.

2/ RANKING OF MEAN TURFGRASS QUALITY IS ACHIEVED BY ASSIGNING "1" TO THE HIGHEST MEAN, "2" TO THE SECOND HIGHEST MEAN, ETC. FOR EACH LOCATION. FOR EXAMPLE, IF TWO MEANS ARE TIED FOR THE SECOND AND THIRD RANKS, BOTH ARE ASSIGNED "2.5".

TABLE 4.

GENETIC COLOR RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
GENETIC COLOR RATINGS 1-9; 9=DARK GREEN 2/

NAME	AR1	IA1	IL1	IL2	KY1	MI1	NE1	NJ1	OK1	QE1	RI1	UB1	UB2	VA1	WA1	MEAN
BRIGHTSTAR II (PST-2M3)	8.3	7.7	5.3	8.3	9.0	7.0	7.7	8.0	7.7	8.7	8.7	7.7	7.0	7.7	9.0	7.8
TRF-94-C8	9.0	7.7	5.3	8.0	9.0	6.7	8.3	8.0	7.3	8.3	9.0	7.0	7.0	8.0	9.0	7.8
RADIANT (MB 44)	8.7	6.7	5.0	8.7	9.0	7.3	8.0	8.7	7.0	9.0	9.0	7.0	7.0	7.3	9.0	7.8
PRELUDE III (IRF-94-B6)	8.7	7.7	6.0	8.3	9.0	6.3	8.0	8.0	7.0	8.3	9.0	7.0	6.7	8.0	9.0	7.8
WIND DANCE (MB 46)	8.7	7.7	5.0	8.3	9.0	6.7	8.0	7.7	7.0	8.3	9.0	7.3	7.3	7.3	9.0	7.8
REPELL III (TRF-94-C7)	8.0	7.7	5.3	7.7	8.7	6.0	7.0	8.0	7.3	8.3	8.7	7.3	7.3	7.7	9.0	7.6
CHAPARRAL (PST-2DLM)	8.0	7.3	5.3	7.7	9.0	6.0	7.7	7.7	6.7	8.7	8.7	7.3	7.3	7.0	8.7	7.5
IMAGINE	8.0	7.3	5.3	7.7	8.7	6.0	7.3	7.7	7.0	8.7	9.0	7.3	7.0	7.3	8.7	7.5
ASCEND (MB 45)	7.3	7.7	6.0	7.7	9.0	6.3	7.7	7.3	7.0	8.0	9.0	7.0	7.0	7.3	8.3	7.5
PENNANT II (MB 42)	8.0	8.0	5.7	7.0	9.0	6.3	7.3	7.0	6.7	8.7	8.7	6.3	7.0	7.7	9.0	7.5
LINE DRIVE (MB 47)	7.0	7.7	5.0	7.3	9.0	6.3	7.7	7.3	7.0	8.0	9.0	6.7	6.3	7.7	8.7	7.4
PALMER III (TRF-94-MPRH)	8.0	7.0	5.3	7.3	9.0	6.7	8.0	6.7	7.0	8.0	8.3	7.0	6.3	7.7	8.3	7.4
MAJESTY (MB 43)	7.7	7.0	6.0	6.7	8.7	6.7	8.0	6.3	7.0	7.7	8.7	7.0	6.3	7.0	9.0	7.3
CITATION III (PST-2DGR)	8.3	6.7	5.3	7.0	9.0	6.0	6.7	7.0	7.3	8.0	8.3	7.0	7.0	7.0	9.0	7.3
ROADRUNNER (PST-2ET)	7.3	6.7	5.3	7.7	9.0	6.0	7.0	6.3	7.0	8.3	8.3	7.0	6.7	8.0	8.7	7.3
EXCEL (MB 1-5)	6.3	7.3	5.0	7.3	9.0	6.0	7.7	7.0	7.0	8.0	8.7	7.0	7.0	7.0	9.0	7.3
CATALINA (PST-GH-94)	8.7	7.7	5.3	6.3	8.7	7.0	7.7	6.0	7.0	8.0	8.0	7.3	6.7	6.7	8.0	7.3
SUNSHINE (PICK LP 102-92)	7.3	7.7	5.0	6.7	9.0	6.0	8.3	7.0	7.0	7.3	7.7	7.0	7.0	7.3	8.7	7.3
PREMIER II (BAR USA 94-II)	7.3	7.3	5.0	7.0	9.0	6.3	7.7	6.7	7.0	7.7	8.7	6.7	6.7	7.0	8.7	7.2
BRIGHTSTAR	6.7	7.3	5.0	7.7	9.0	6.3	7.7	6.3	7.3	7.7	7.7	6.3	6.3	6.7	8.3	7.1
WX3-93	6.0	7.0	5.3	7.0	9.0	6.3	8.0	7.0	7.0	8.0	7.7	6.0	6.7	6.7	8.0	7.0
CAS-LP23	6.7	7.0	5.0	7.0	9.0	6.7	7.3	5.7	7.0	7.7	8.0	6.7	6.3	7.3	8.0	7.0
ADVANTAGE	7.3	7.3	5.3	6.3	8.7	6.3	7.3	6.0	6.7	7.7	8.0	6.3	6.3	7.0	8.0	7.0
CALYPSO II	7.0	6.7	5.3	5.3	9.0	6.7	7.3	5.7	7.7	7.0	8.3	7.0	6.7	7.0	8.0	7.0
DIVINE	7.3	7.0	5.3	6.0	9.0	6.0	7.3	6.3	7.3	7.3	8.0	6.0	6.0	7.3	8.3	7.0
NINE-O-ONE	8.0	7.3	5.3	6.0	9.0	6.0	8.0	5.0	7.0	7.3	8.0	6.0	6.3	7.0	8.0	7.0
LEGACY II (LESCO-TWF)	7.3	7.3	4.7	6.7	9.0	6.0	6.7	6.0	7.0	8.0	8.0	6.3	6.3	7.0	8.0	7.0
MONTEREY (J-1706)	7.0	7.0	5.0	6.0	9.0	6.7	8.3	5.7	7.0	6.7	7.7	6.7	6.3	7.0	8.0	6.9
SECRETARIAT (RPBD)	8.0	6.7	5.0	5.7	9.0	6.0	8.0	6.0	7.0	7.3	8.0	6.0	6.0	7.0	8.3	6.9
PASSPORT (PST-2FF)	6.7	7.0	5.3	6.7	8.7	6.3	7.7	5.3	7.0	7.0	8.0	7.0	6.0	7.0	8.0	6.9
WIZARD (MB 41)	7.7	7.0	5.3	6.3	8.3	6.0	7.3	5.0	7.0	7.3	8.7	6.0	6.7	6.7	8.0	6.9
ELF	6.3	6.0	5.0	7.3	9.0	6.0	7.7	5.7	6.7	6.7	8.0	7.0	7.0	7.0	8.0	6.9
MANHATTAN 3	7.0	6.3	5.0	5.7	9.0	6.3	6.7	6.7	7.0	7.7	8.3	6.3	6.0	7.0	8.3	6.9
NIGHT HAWK	7.7	7.3	4.7	4.7	9.0	7.0	6.7	6.0	7.0	8.0	7.7	6.7	6.3	7.0	7.3	6.9
STARDANCE (PST-2FE)	7.0	7.0	5.0	7.3	9.0	6.0	7.7	5.0	6.7	6.3	7.3	6.7	6.7	6.7	8.7	6.9
ESQUIRE	6.3	7.3	4.7	6.3	9.0	6.3	7.7	6.7	7.0	7.7	7.3	5.7	6.3	6.7	7.7	6.8
LAREDO	8.0	6.3	5.0	6.3	8.7	6.0	6.7	6.0	7.3	7.3	7.3	6.7	6.0	7.0	8.0	6.8
PANTHER (ZPS-PR1)	6.3	6.7	5.7	6.7	9.0	6.3	7.0	6.0	7.0	7.0	8.0	6.3	6.3	6.3	7.7	6.8
RIVIERA II	7.0	7.0	4.7	5.7	8.3	6.7	8.0	5.3	7.3	6.7	8.0	6.0	5.7	7.0	8.0	6.8
CADDIESHACK (MED 5071)	6.3	6.3	5.0	6.3	8.7	6.0	6.7	6.3	7.0	7.3	8.0	6.0	6.3	6.7	7.7	6.7
MARDIGRAS (ZPS-2NV)	6.7	6.3	5.0	6.3	8.7	6.0	7.0	5.7	7.0	7.0	7.3	6.7	6.7	6.3	8.0	6.7
OMEGA3 (ZPS-2IR-94)	7.0	7.0	4.3	5.7	9.0	6.0	8.0	5.3	7.0	6.7	7.0	6.7	6.3	6.7	7.7	6.7
ACHIEVER	7.0	6.3	5.3	6.3	8.7	6.0	8.0	5.0	7.0	6.3	7.7	5.3	6.3	7.0	8.0	6.7
OMNI	8.0	6.3	4.7	5.7	8.7	6.3	7.0	5.7	7.3	7.0	7.0	5.3	6.0	7.3	8.0	6.7
SATURN II (ZPS-2ST)	7.0	7.3	5.0	5.0	9.0	6.3	8.0	4.0	6.7	6.7	7.7	6.0	6.7	6.7	8.0	6.7
TOP HAT	7.0	7.3	5.0	5.3	9.0	6.3	7.3	5.0	7.0	7.0	8.0	6.0	5.7	6.3	7.7	6.7
VIVID	6.3	7.0	5.0	5.3	8.7	6.3	7.7	6.0	7.0	6.3	7.7	6.3	6.0	6.7	7.7	6.7
BLAZER III (PICK 928)	6.0	6.7	4.7	5.7	8.7	6.0	7.7	5.3	7.0	7.0	8.0	5.7	6.3	7.0	8.0	6.6
HEAD START (PICK PR 84-91)	6.7	7.3	4.7	5.0	8.3	5.7	7.3	6.0	7.0	7.7	7.7	6.0	6.0	6.7	7.3	6.6
MORNING STAR	6.3	7.0	5.0	5.7	9.0	6.0	7.3	4.3	7.0	7.0	8.0	5.7	6.3	7.0	7.3	6.6
SONATA (PST-2R3)	5.7	7.0	5.0	6.0	9.0	6.3	6.7	4.7	7.0	7.3	8.0	6.3	6.0	6.3	7.7	6.6

TABLE 4. (CONT'D)

## GENETIC COLOR RATINGS OF PERENNIAL RYEGRASS CULTIVARS

1998 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN

NAME	AR1	IA1	IL1	IL2	KY1	MI1	NE1	NJ1	OK1	QE1	RI1	UB1	UB2	VA1	WA1	MEAN
SR 4200	6.7	7.0	5.0	6.0	8.0	6.7	6.3	5.0	7.3	6.0	7.7	6.0	6.0	7.3	8.0	6.6
PST-2CB	6.7	7.3	5.0	5.3	8.7	6.0	7.0	5.0	7.0	6.7	7.3	6.0	6.0	7.0	7.7	6.6
PRIZM	6.3	6.3	5.3	5.7	8.7	6.0	7.3	5.0	6.7	6.7	7.7	5.7	6.3	7.0	7.7	6.6
CUTTER	6.0	6.3	5.0	6.7	8.7	6.0	7.0	5.0	7.0	7.0	7.0	5.7	6.0	7.0	7.7	6.5
APR 124	6.3	6.3	5.0	4.3	8.7	6.0	8.0	5.0	6.7	7.3	7.3	6.0	6.3	7.3	7.3	6.5
TOP GUN (J-1703)	7.3	6.3	5.0	5.3	8.0	6.0	7.3	5.0	7.3	6.3	7.3	6.0	6.0	6.7	7.7	6.5
EDGE	6.3	6.3	5.0	5.0	9.0	6.3	7.7	4.7	7.0	6.3	7.7	6.0	6.0	6.7	7.3	6.5
WX3-91	6.7	6.0	5.0	6.3	8.7	6.3	7.0	5.0	6.7	6.7	7.3	5.7	6.0	6.7	7.3	6.5
PEGASUS	6.3	6.7	4.7	5.0	8.3	6.3	6.7	5.0	7.0	7.3	7.3	6.0	6.0	6.7	7.7	6.5
DERBY SUPREME (ISI-MHB)	7.0	7.0	5.0	5.3	8.7	6.0	7.7	5.0	6.7	6.7	7.3	5.7	5.7	6.0	7.3	6.5
ACCENT	7.0	6.7	4.7	5.0	8.0	6.3	6.3	6.0	7.3	6.3	7.7	5.7	6.0	6.0	7.7	6.4
SPELL BOUND (WVPB-93-KFK)	6.3	6.3	5.0	4.7	7.7	6.3	7.3	5.3	7.0	6.7	7.0	5.7	6.7	7.0	7.3	6.4
NAVAJO	6.7	7.0	5.0	5.7	8.3	6.3	7.0	4.0	7.0	6.7	7.3	5.7	5.7	6.7	7.0	6.4
KOOS 93-6	6.0	6.7	4.7	5.3	8.3	6.3	8.0	4.0	7.0	6.7	7.0	6.0	5.3	7.0	7.3	6.4
WIND STAR (PST-28M)	7.0	6.7	4.7	5.3	8.7	6.3	7.3	5.0	7.3	6.0	6.7	5.7	5.7	6.0	7.0	6.4
BLACKHAWK (TMI-EXFLP94)	6.3	7.0	4.7	4.3	8.0	6.3	7.3	4.0	7.0	6.7	7.3	6.3	6.0	6.7	7.3	6.4
PROTOCOL (KOOS 93-3)	6.3	6.7	5.0	4.7	8.0	6.0	7.3	4.7	7.0	7.0	7.3	5.3	5.7	6.3	7.7	6.3
PS-D-9	6.3	6.7	4.7	5.7	8.7	6.7	6.3	4.3	6.7	6.3	7.0	5.3	6.0	7.0	7.3	6.3
QUICKSTART	6.0	6.7	4.7	5.0	8.7	6.0	7.7	4.3	6.7	6.3	7.0	5.7	6.0	7.0	7.3	6.3
STALLION SUPREME (PSI-E-1)	6.3	6.3	4.7	4.3	8.0	6.3	8.0	4.3	7.0	7.0	6.7	6.0	6.3	6.7	7.0	6.3
ACADEMY (PC-93-1)	6.7	6.3	4.3	4.3	9.0	6.3	7.3	4.3	7.0	6.7	6.0	6.0	6.0	7.0	7.3	6.3
WVPB-PR-C-2	6.3	7.0	4.7	4.0	8.7	6.0	7.0	4.3	7.0	6.3	7.7	6.3	6.0	6.7	6.7	6.3
MVF-4-1	6.0	7.0	5.0	4.7	9.0	6.0	7.0	4.7	7.0	6.3	6.7	5.0	5.7	7.0	7.0	6.3
ASSURE	6.3	6.7	5.0	5.0	8.7	6.0	7.0	4.3	6.7	6.7	7.0	5.3	5.7	6.7	7.0	6.3
PRECISION	6.3	6.3	4.7	4.0	8.0	6.7	7.7	4.0	6.7	7.3	7.0	5.3	6.0	6.7	7.3	6.3
R2 (ISI-R2)	6.0	6.7	4.7	5.7	8.0	6.3	7.7	4.7	6.7	6.7	7.3	5.0	5.3	5.7	7.3	6.2
BAR ER 5813	6.3	6.7	5.0	3.3	8.3	6.0	7.0	4.7	7.0	6.0	7.3	6.3	5.7	6.7	6.7	6.2
STALLION SELECT	6.0	7.0	5.0	4.3	8.0	6.7	6.3	4.7	6.7	6.0	7.0	6.0	5.7	6.7	7.0	6.2
ASP400 (APR 106)	6.7	6.3	4.7	3.7	8.0	6.0	6.7	4.7	7.7	6.0	6.3	6.0	6.0	7.0	7.3	6.2
DANCER	6.0	7.3	4.3	3.3	7.7	6.3	6.3	5.0	7.0	6.7	7.0	6.0	6.0	6.7	7.0	6.2
EXPRESS	6.0	6.7	4.7	5.3	7.7	5.7	7.3	4.0	7.0	6.7	6.3	5.7	6.0	6.7	7.0	6.2
SATURN	5.3	6.7	4.7	3.7	8.7	6.3	7.3	3.7	6.7	6.7	6.7	6.3	6.0	7.0	7.0	6.2
SR 4010 (SRX 4010)	6.3	6.0	4.7	3.7	7.7	6.3	8.0	4.0	7.0	6.3	7.3	5.3	5.3	7.0	7.0	6.1
WILLIAMSBURG	7.3	6.0	5.0	4.7	8.0	6.3	6.3	3.3	7.0	6.0	6.3	4.7	5.7	6.7	7.0	6.0
APR 131	6.3	7.0	5.0	3.0	8.3	6.0	6.3	4.3	6.7	5.3	6.7	6.0	5.3	7.0	6.7	6.0
SR 4400 (SRX 4400)	5.7	7.0	4.7	3.7	7.7	6.7	7.0	4.0	7.3	5.7	6.7	5.0	5.0	7.0	6.7	6.0
NOBILITY	5.7	7.3	4.3	3.7	8.0	6.0	7.0	4.0	6.3	5.7	7.0	5.3	5.0	7.0	7.0	6.0
BUCCANEER II (WVPB 92-4)	6.7	6.7	5.0	2.3	7.3	6.3	7.3	3.0	6.7	5.7	6.0	4.7	5.3	7.0	6.7	5.8
DLP 1305	5.3	6.3	3.7	4.0	8.0	6.0	6.3	3.3	6.7	6.7	6.7	6.0	5.0	6.0	6.3	5.8
APR 066	5.7	6.3	4.7	2.3	8.0	6.0	6.7	3.3	7.0	6.0	5.3	5.3	6.0	6.3	6.7	5.7
FIGARO	4.7	6.7	4.0	2.7	7.7	6.0	6.3	3.0	7.0	6.7	5.3	5.7	5.3	5.3	5.7	5.5
PENNFINE	5.0	7.0	4.7	3.3	8.0	5.7	5.7	3.0	6.7	5.3	3.3	5.7	5.0	5.0	6.7	5.3
DSV NA 9401	5.0	6.0	4.0	1.3	8.0	5.7	7.0	3.0	7.0	5.3	4.3	5.7	4.7	5.7	6.0	5.2
DSV NA 9402	5.0	6.3	4.0	1.3	7.7	6.3	6.3	2.7	7.0	5.7	2.3	6.0	5.0	6.0	6.0	5.2
LINN	5.3	5.7	3.0	1.3	5.0	5.7	7.0	2.0	6.3	5.7	2.0	4.3	4.7	6.0	5.0	4.6
LSD VALUE	1.3	1.0	0.7	1.6	0.6	0.8	1.5	1.1	0.7	1.2	1.0	1.0	0.9	0.7	0.8	0.3
C.V. (%)	11.7	9.1	9.2	18.4	4.6	8.3	13.2	12.7	5.8	10.3	8.4	10.3	8.9	6.3	6.4	9.7

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 5. SPRING GREENUP RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 1998 DATA  
 SPRING GREENUP RATINGS 1-9; 9=COMPLETELY GREEN 2/

NAME	IA1	MI1	NJ1	OK1	VA1	WA1	MEAN
ESQUIRE	5.7	6.7	5.7	8.0	7.0	4.3	6.2
BAR ER 5813	5.3	6.7	5.3	8.0	6.3	5.3	6.2
PREMIER II (BAR USA 94-II)	6.3	5.7	5.0	7.3	6.7	6.0	6.2
DLP 1305	6.0	5.3	6.3	7.3	6.3	5.7	6.2
CALYPSO II	6.0	5.7	5.0	7.7	7.0	5.3	6.1
CHAPARRAL (PST-2DLM)	6.0	6.7	4.7	7.7	6.7	5.0	6.1
EXPRESS	6.0	5.3	6.7	8.0	5.7	5.0	6.1
LINE DRIVE (MB 47)	6.3	6.3	3.7	7.3	7.0	6.0	6.1
MONTEREY (J-1706)	5.7	5.0	5.7	8.0	6.3	5.7	6.1
PANTHER (ZPS-PR1)	5.7	6.3	5.0	7.7	6.7	5.0	6.1
PENNFINE	5.3	5.3	7.7	7.7	5.0	5.3	6.1
PRECISION	6.0	4.7	6.0	8.0	6.3	5.3	6.1
ELF	6.0	5.3	5.0	8.3	5.3	6.3	6.1
STALLION SELECT	6.0	6.0	5.3	8.0	6.3	4.7	6.1
ACADEMY (PC-93-1)	5.7	6.0	4.7	8.0	6.7	5.0	6.0
MVF-4-1	5.3	6.0	5.7	8.0	6.0	5.0	6.0
SATURN	6.0	6.0	5.7	7.3	5.7	5.3	6.0
SECRETARIAT (RPBD)	6.3	5.7	4.7	8.0	6.0	5.3	6.0
TOP GUN (J-1703)	6.7	5.0	5.7	7.7	6.0	5.0	6.0
WIND STAR (PST-28M)	6.0	4.7	5.7	7.7	6.0	6.0	6.0
WIZARD (MB 41)	6.3	5.0	4.0	8.0	7.0	5.7	6.0
BLAZER III (PICK 928)	6.0	5.7	4.3	7.7	6.7	5.3	5.9
DANCER	5.7	5.3	4.7	8.3	6.7	5.0	5.9
RIVIERA II	5.7	5.0	5.7	8.0	6.7	4.7	5.9
APR 066	6.0	6.3	5.0	7.3	5.7	5.3	5.9
BLACKHAWK (TMI-EXFLP94)	6.0	5.3	6.0	7.3	6.0	5.0	5.9
PEGASUS	6.3	5.0	4.7	7.3	6.3	6.0	5.9
PROTOCOL (KOOS 93-3)	5.3	5.3	5.7	8.0	6.3	5.0	5.9
SR 4400 (SRX 4400)	5.3	5.7	5.3	7.3	6.7	5.3	5.9
LRF-94-C8	6.0	6.0	3.0	7.7	7.0	5.7	5.9
SR 4200	6.3	4.3	5.7	7.7	6.0	5.3	5.9
ACCENT	5.3	6.0	4.7	8.0	6.3	5.0	5.9
ACHIEVER	6.0	5.0	5.3	8.3	4.7	5.7	5.8
DERBY SUPREME (ISI-MHB)	5.7	5.0	5.3	7.3	6.0	5.7	5.8
DIVINE	5.7	5.3	4.7	7.7	6.3	5.3	5.8
DSV NA 9402	5.3	6.0	6.7	7.7	5.3	4.0	5.8
EXCEL (MB 1-5)	6.0	6.0	3.7	7.7	6.7	5.0	5.8
FIGARO	5.7	5.0	6.7	7.0	5.7	5.0	5.8
MARDIGRAS (ZPS-2NV)	6.0	6.3	4.3	7.7	6.3	4.3	5.8
OMEGA3 (ZPS-2DR-94)	5.7	5.3	5.7	7.3	6.3	4.7	5.8
EDGE	6.3	4.0	5.7	7.7	6.0	5.0	5.8
PRIZM	6.3	4.7	5.0	8.0	5.7	5.0	5.8
PS-D-9	5.7	5.7	5.0	7.3	6.0	5.0	5.8
ASSURE	6.3	4.3	5.0	8.0	6.0	5.0	5.8
SR 4010 (SRX 4010)	6.3	4.3	5.7	7.7	6.3	4.3	5.8
TOP HAT	6.0	5.7	4.3	8.0	6.0	4.7	5.8
APR 124	5.3	4.3	5.7	8.0	6.7	4.3	5.7
PAIMER III (LRF-94-MPRH)	5.3	4.7	4.3	7.7	6.7	5.7	5.7
PENNANT II (MB 42)	5.7	4.7	4.0	7.3	7.3	5.3	5.7
QUICKSTART	5.7	6.0	5.0	7.7	5.7	4.3	5.7
REPELL III (LRF-94-C7)	6.0	6.0	3.3	7.3	6.7	5.0	5.7
ROADRUNNER (PST-2ET)	6.3	4.3	4.7	8.0	5.7	5.3	5.7

TABLE 5. SPRING GREENUP RATINGS OF PERENNIAL RYEGRASS CULTIVARS  
(CONT'D) 1998 DATA  
SPRING GREENUP RATINGS 1-9; 9=COMPLETELY GREEN

NAME	IA1	MI1	NJ1	OK1	VA1	WA1	MEAN
WILLIAMSBURG	5.7	5.3	5.7	7.7	5.7	4.3	5.7
WVFB-PR-C-2	5.7	5.7	4.7	7.7	5.7	5.0	5.7
WX3-91	5.3	4.3	5.3	7.7	6.3	5.3	5.7
NOBILITY	5.0	4.7	6.0	7.3	5.3	6.0	5.7
SATURN II (ZPS-2ST)	5.3	5.3	5.0	7.3	6.3	5.0	5.7
SPELL BOUND (WVPB-93-KFK)	5.3	5.3	5.0	8.0	6.0	4.7	5.7
CITATION III (PST-2DGR)	5.3	5.7	4.3	7.3	6.3	5.0	5.7
DSV NA 9401	5.3	6.3	4.7	7.3	6.0	4.3	5.7
LAREDO	6.3	4.0	5.0	7.7	6.3	4.7	5.7
LEGACY II (LESCO-TWF)	5.7	5.7	4.0	7.3	6.7	4.7	5.7
VIVID	5.3	4.3	5.0	7.7	7.0	4.7	5.7
CADDIESHACK (MED 5071)	5.7	4.7	4.3	7.3	6.7	5.0	5.6
MANHATTAN 3	5.3	4.7	5.0	7.7	6.7	4.3	5.6
MORNING STAR	5.0	5.0	5.7	7.0	6.0	5.0	5.6
APR 131	6.0	4.3	5.0	8.0	5.0	5.3	5.6
KOCS 93-6	5.0	3.7	6.0	7.7	6.0	5.3	5.6
PST-2CB	6.0	5.0	4.7	7.3	5.0	5.7	5.6
R2 (ISI-R2)	5.7	3.7	6.0	7.7	6.0	4.7	5.6
CUTTER	5.3	4.7	5.0	7.7	6.7	4.0	5.6
OMNI	5.3	4.3	3.7	7.7	7.0	5.3	5.6
CAS-LP23	6.0	6.0	2.7	7.0	7.0	4.7	5.6
PRELUDE III (LRF-94-B6)	5.3	4.3	3.7	8.0	7.0	5.0	5.6
WIND DANCE (MB 46)	5.3	6.3	3.0	7.0	7.7	4.0	5.6
ASP400 (APR 106)	5.0	5.0	4.7	7.7	5.7	5.0	5.5
BRIGHTSTAR	5.7	4.7	3.3	7.7	7.0	4.7	5.5
BUCCANEER II (WVPB 92-4)	5.7	4.3	5.7	7.3	5.7	4.3	5.5
CATALINA (PST-GH-94)	5.3	6.0	4.0	7.3	6.7	3.7	5.5
RADIANT (MB 44)	5.7	5.0	2.7	7.3	7.7	4.7	5.5
SONATA (PST-2R3)	5.7	4.7	4.0	7.3	6.7	4.7	5.5
STARDANCE (PST-2FE)	6.0	4.3	4.0	8.0	5.3	5.3	5.5
WX3-93	5.7	4.3	3.7	7.3	7.7	4.3	5.5
ADVANTAGE	5.0	5.0	4.0	7.0	6.7	5.0	5.4
MAJESTY (MB 43)	6.0	3.7	4.0	7.0	7.0	5.0	5.4
PASSPORT (PST-2FF)	5.7	4.3	4.3	7.3	6.3	4.7	5.4
LINN	5.0	5.0	7.7	7.0	3.0	4.7	5.4
NIGHT HAWK	6.0	3.3	4.7	7.3	6.7	4.3	5.4
NINE-O-ONE	5.0	5.7	4.0	7.3	6.0	4.3	5.4
ASCEND (MB 45)	5.0	5.3	3.3	7.0	7.0	4.3	5.3
BRIGHTSTAR II (PST-2M3)	5.7	5.0	2.3	7.0	7.7	4.3	5.3
NAVAJO	6.3	4.3	3.7	7.0	6.3	4.3	5.3
HEAD START (PICK PR 84-91)	5.7	4.0	3.7	7.3	6.7	4.3	5.3
STALLION SUPREME (PSI-E-1)	5.3	4.3	3.7	8.0	6.0	4.3	5.3
SUNSHINE (PICK LP 102-92)	6.0	4.0	4.0	7.3	6.3	4.0	5.3
IMAGINE	5.3	6.0	2.0	7.3	6.3	4.0	5.2
LSD VALUE	1.3	2.5	1.4	0.8	1.1	1.1	0.6
C.V. (%)	13.7	30.3	18.8	6.7	10.5	13.7	15.9

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.

LEAF TEXTURE RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 2/

NAME	AR1	IA1	II1	IL2	KY1	MI1	NE1	OK1	QE1	RI1	UB1	VA1	WA1	MEAN
BRIGHTSTAR II (PST-2M3)	8.0	7.0	6.3	7.7	9.0	6.7	7.7	8.0	5.7	6.7	8.0	7.0	6.7	7.3
WIND DANCE (MB 46)	8.0	6.0	7.0	8.7	9.0	5.7	7.3	8.0	6.0	7.0	7.7	7.0	7.0	7.3
CALYPSO II	7.7	5.7	6.7	7.7	8.7	6.3	8.3	8.0	5.7	7.3	8.0	7.0	7.0	7.2
PENNANT II (MB 42)	8.0	5.7	6.3	7.7	9.0	6.0	8.3	8.0	5.7	7.0	8.0	6.7	6.7	7.2
CADDIESHACK (MED 5071)	8.7	5.7	6.7	6.3	9.0	5.7	8.0	8.0	5.3	6.7	7.7	7.0	7.0	7.1
LAREDO	7.7	5.3	6.3	6.0	9.0	6.0	8.3	8.0	6.3	6.7	8.0	7.0	7.0	7.1
LRF-94-C8	8.0	6.3	6.7	6.0	9.0	6.0	8.0	7.7	6.3	7.0	7.0	7.0	6.7	7.1
REPEL III (LRF-94-C7)	7.7	6.3	6.7	6.3	8.7	5.7	7.3	8.0	6.7	6.7	8.0	7.0	6.7	7.1
DIVINE	7.3	6.0	6.0	7.0	9.0	6.0	8.0	8.0	6.7	7.0	7.3	6.3	7.0	7.1
PALMER III (LRF-94-MPRH)	8.0	6.0	6.7	5.3	8.0	6.3	8.0	8.0	6.3	7.0	8.0	6.7	7.0	7.0
CHAPARRAL (PST-2DLM)	7.7	6.3	6.0	6.7	8.7	6.0	8.7	8.0	5.7	6.3	7.3	7.0	7.0	7.0
SUNSHINE (PICK LP 102-92)	7.7	6.0	6.3	6.7	8.3	5.7	8.7	8.0	5.3	7.0	7.7	7.0	7.0	7.0
HEAD START (PICK PR 84-91)	7.0	6.0	6.7	5.7	8.3	6.0	8.3	8.0	5.7	7.0	8.0	7.3	7.0	7.0
PRELUDE III (LRF-94-B6)	7.3	6.7	6.3	5.0	8.7	5.7	8.7	8.0	6.7	6.7	7.7	7.0	6.7	7.0
SR 4400 (SRX 4400)	7.3	6.0	6.3	5.7	9.0	5.7	8.3	8.0	6.3	7.0	7.7	7.0	6.7	7.0
ASCEND (MB 45)	7.0	5.7	6.3	7.3	9.0	5.7	7.3	8.0	6.0	6.7	7.7	7.0	7.0	7.0
EXCEL (MB 1-5)	6.7	5.3	6.3	5.7	9.0	6.0	8.0	8.0	7.3	6.7	7.7	7.0	7.0	7.0
LINE DRIVE (MB 47)	7.3	5.3	6.7	5.7	8.7	5.7	8.3	8.0	6.3	7.0	7.7	7.0	7.0	7.0
CATALINA (PST-GH-94)	7.3	6.3	6.3	6.3	7.7	6.0	8.3	8.0	6.0	7.0	7.7	6.7	6.7	6.9
MONTEREY (J-1706)	6.0	5.7	7.0	6.7	8.7	6.0	7.3	8.0	6.0	7.0	8.0	7.0	7.0	6.9
WIZARD (MB 41)	7.7	6.0	6.0	6.0	8.7	6.0	7.7	8.0	6.3	6.0	8.0	7.0	7.0	6.9
CITATION III (PST-2DGR)	7.7	6.3	6.3	6.0	8.3	5.7	8.3	7.7	6.0	6.7	7.3	7.0	7.0	6.9
MAJESTY (MB 43)	7.7	5.7	6.7	4.3	9.0	6.0	8.7	8.0	6.0	6.3	8.0	7.0	7.0	6.9
CAS-LF23	7.3	6.0	6.0	5.0	8.3	6.3	8.3	8.0	6.3	7.0	7.3	7.0	7.0	6.9
OMNI	7.3	6.0	6.3	5.0	8.7	6.0	8.0	8.0	6.0	6.7	8.0	7.0	7.0	6.9
KOOS 93-6	7.0	5.7	6.3	5.0	9.0	6.0	8.0	8.3	6.3	6.7	7.3	7.0	7.0	6.9
MVF-4-1	6.7	5.7	6.7	6.0	8.0	6.0	8.3	8.0	6.0	7.0	7.3	7.0	7.0	6.9
SONATA (PST-2R3)	6.7	5.0	6.7	8.0	8.0	6.0	7.0	8.0	6.0	6.7	7.7	7.0	7.0	6.9
DERBY SUPREME (ISI-MHB)	7.0	6.0	6.3	5.0	8.0	6.0	8.7	8.0	6.7	7.0	7.3	6.7	7.0	6.9
PRIZM	7.7	5.3	6.3	5.7	8.3	5.7	9.0	8.0	5.7	6.7	7.3	7.0	7.0	6.9
SECRETARIAT (RPBD)	7.3	5.7	6.3	6.0	7.7	5.7	8.3	7.7	6.0	7.0	8.0	7.0	7.0	6.9
PANTHER (ZPS-PR1)	8.0	5.3	6.7	5.3	8.3	5.7	7.7	8.0	6.0	7.0	7.7	6.7	7.0	6.9
ACCENT	8.0	5.0	6.7	6.7	8.0	6.0	6.7	7.7	6.0	7.0	7.7	7.0	7.0	6.9
BLAZER III (PICK 928)	7.3	6.0	7.0	5.3	7.7	5.7	8.0	8.0	5.3	7.0	8.0	7.0	7.0	6.9
RADIANT (MB 44)	6.7	6.7	5.7	6.3	8.3	6.0	8.7	8.0	5.7	6.3	7.3	7.0	6.7	6.9
SR 4200	7.0	5.7	7.0	4.7	7.7	6.0	8.0	8.0	6.7	7.0	7.7	7.0	7.0	6.9
OMEGA3 (ZPS-2DR-94)	7.3	6.0	6.0	4.3	8.0	6.3	8.3	8.3	6.3	7.0	7.3	6.7	7.0	6.8
TOP HAT	8.3	6.3	6.7	4.3	8.3	5.7	7.7	8.0	5.3	7.0	7.7	6.7	7.0	6.8
IMAGINE	6.7	6.3	5.7	5.7	8.3	6.0	7.7	8.0	5.3	7.0	8.0	7.0	7.0	6.8
RIVIERA II	7.7	5.3	7.0	5.3	8.0	6.0	8.0	8.0	6.0	6.7	7.3	6.7	6.7	6.8
BRIGHTSTAR	7.0	5.3	7.0	6.0	8.0	6.3	7.7	8.0	5.7	6.0	7.7	7.0	6.7	6.8
PREMIER II (BAR USA 94-II)	7.7	5.3	6.3	6.0	8.7	5.7	8.0	8.0	5.7	5.7	8.0	6.7	6.7	6.8
SATURN II (ZPS-2ST)	7.7	5.7	6.7	3.7	8.0	6.3	8.3	7.7	6.3	7.0	7.3	6.7	7.0	6.8
MARDIGRAS (ZPS-2NV)	7.0	5.7	6.3	5.3	8.3	5.7	8.0	8.0	6.3	6.7	7.3	7.0	6.7	6.8
ROADRUNNER (PST-2ET)	7.3	5.7	6.7	4.7	8.0	5.7	7.3	7.7	6.7	7.0	7.7	7.0	7.0	6.8
SR 4010 (SRX 4010)	6.3	5.3	6.7	5.3	8.0	6.0	8.3	8.0	6.7	6.7	7.3	7.0	6.7	6.8
TOP GUN (J-1703)	7.7	6.0	6.3	5.3	8.0	5.7	7.3	8.0	5.3	7.0	7.7	7.0	7.0	6.8
ESQUIRE	6.7	5.3	6.7	5.7	8.0	6.3	8.3	8.0	5.7	6.7	7.7	6.7	6.3	6.8
ADVANTAGE	6.7	5.7	6.3	6.3	8.7	5.7	7.7	8.0	5.3	6.3	7.3	7.0	7.0	6.8
ASSURE	7.0	5.3	6.7	5.3	7.7	5.7	8.0	8.0	6.0	7.0	7.7	6.7	6.7	6.7
PASSPORT (PST-2FF)	7.7	5.7	6.0	4.7	8.0	6.0	8.3	7.7	5.7	6.7	7.7	6.7	7.0	6.7
PS-D-9	7.0	5.7	6.3	5.7	8.0	6.3	7.0	8.0	5.7	6.7	7.3	6.7	7.0	6.7

TABLE 6. (CONT'D)

## LEAF TEXTURE RATINGS OF PERENNIAL RYEGRASS CULTIVARS

1998 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE

NAME	AR1	IA1	IL1	IL2	KY1	MI1	NE1	OK1	QE1	RI1	UB1	VA1	WA1	MEAN
WX3-93	6.7	5.3	6.3	5.3	7.7	6.0	8.3	8.0	5.7	6.7	7.7	6.7	7.0	6.7
BLACKHAWK (TMI-EXFLP94)	7.0	5.0	7.0	5.0	8.3	5.7	8.3	8.0	6.0	6.7	7.3	6.7	6.3	6.7
PROTOCOL (KOOS 93-3)	7.7	5.3	6.7	4.0	9.0	6.0	7.3	8.0	6.3	6.0	7.3	6.7	6.7	6.7
ACHIEVER	6.3	5.7	6.3	4.7	8.0	6.0	8.7	8.0	6.3	6.7	7.3	6.7	6.3	6.7
STALLION SUPREME (PSI-E-1)	7.0	5.7	6.0	4.3	7.3	6.3	8.0	8.0	6.3	7.0	7.3	7.0	6.7	6.7
BAR ER 5813	6.7	6.0	7.0	3.7	7.0	6.3	8.0	8.0	6.7	6.7	7.0	7.0	6.7	6.7
LEGACY II (LESCO-TWF)	6.0	5.0	6.7	6.0	8.3	5.7	7.3	8.0	6.0	6.7	7.3	6.7	6.7	6.6
PEGASUS	7.0	5.7	6.7	4.3	8.0	6.0	8.3	8.0	5.7	6.7	7.0	6.3	6.7	6.6
ACADEMY (PC-93-1)	6.7	5.0	6.3	4.7	8.3	5.7	7.7	8.0	6.3	7.0	7.0	6.7	7.0	6.6
MANHATTAN 3	7.3	5.7	6.7	5.3	8.7	6.0	6.3	8.0	5.0	6.7	7.3	7.0	6.3	6.6
WX3-91	6.0	5.7	6.0	5.3	7.0	5.7	8.7	7.7	6.3	6.7	7.3	7.0	7.0	6.6
NOBILITY	6.7	5.0	6.3	5.3	7.3	6.0	7.7	8.0	6.3	6.7	7.0	6.7	7.0	6.6
VIVID	7.3	5.7	6.0	4.7	8.3	6.0	7.7	8.0	6.0	6.3	7.0	6.3	6.7	6.6
EXPRESS	6.0	6.0	6.3	4.3	8.0	6.0	8.3	8.0	6.0	6.3	7.0	6.7	6.7	6.6
PRECISION	5.7	5.7	5.7	4.7	8.0	6.0	8.0	8.0	6.0	7.0	7.3	6.7	7.0	6.6
WIND STAR (PST-28M)	7.3	5.3	6.0	4.0	7.3	6.3	8.0	7.7	5.7	6.7	8.0	6.3	7.0	6.6
EDGE	6.3	5.3	6.3	5.0	8.0	6.0	8.0	8.0	5.7	6.3	7.0	6.7	6.7	6.6
R2 (ISI-R2)	6.3	5.7	6.7	3.7	7.0	6.0	8.3	8.0	6.0	6.7	7.3	6.7	7.0	6.6
SPELL BOUND (WVPB-93-KFK)	6.7	5.7	5.7	3.7	7.7	5.7	8.3	8.0	6.3	7.0	7.0	6.7	7.0	6.6
STARDANCE (PST-2FE)	6.3	6.0	6.3	5.0	6.7	5.7	8.0	7.3	6.0	6.3	7.7	7.0	7.0	6.6
CUTTER	7.0	6.0	5.3	4.3	7.7	6.0	7.7	8.0	6.7	6.7	7.0	6.7	6.3	6.6
PST-2CB	6.7	5.7	6.0	3.7	8.0	5.7	8.0	8.0	6.7	6.3	7.0	6.7	6.7	6.5
APR 131	5.3	5.7	6.0	5.3	8.0	5.3	8.0	8.0	6.3	6.3	7.7	6.0	7.0	6.5
ASP400 (APR 106)	6.3	5.0	6.3	3.7	8.3	5.7	7.3	8.0	6.0	7.0	7.3	7.0	7.0	6.5
MORNING STAR	6.0	5.3	6.3	4.0	7.0	6.0	8.0	8.0	6.3	7.0	7.3	6.7	7.0	6.5
QUICKSTART	6.3	5.3	6.3	4.3	7.3	6.0	8.7	7.7	5.7	7.0	7.0	6.7	6.7	6.5
SATURN	6.7	5.3	6.3	3.0	7.7	6.0	8.7	8.0	5.7	6.7	6.7	7.0	7.0	6.5
DLP 1305	5.7	5.7	4.7	4.3	8.0	7.0	7.3	8.0	6.3	6.3	7.3	6.7	7.0	6.5
BUCCANEER II (WVPB 92-4)	6.3	5.3	6.0	3.7	8.0	5.7	7.7	8.0	6.3	6.7	7.0	6.7	7.0	6.5
NAVAJO	6.3	5.3	6.0	3.7	7.3	5.7	8.3	8.0	5.3	7.0	7.3	7.0	7.0	6.5
ELF	6.0	5.7	7.0	3.7	7.0	6.0	7.3	8.0	6.0	6.7	7.0	6.7	7.0	6.5
NINE-O-ONE	7.0	5.3	6.0	4.3	6.7	5.7	7.3	8.0	6.3	6.3	7.3	6.7	7.0	6.5
DANCER	6.3	5.3	6.7	5.0	6.0	5.7	7.0	8.0	6.0	7.0	7.0	6.7	7.0	6.4
STALLION SELECT	5.3	5.7	6.0	3.7	7.7	6.0	7.7	8.0	6.3	7.0	7.0	6.3	6.7	6.4
APR 066	6.3	5.7	5.7	3.0	6.7	6.3	7.3	8.0	6.3	6.3	7.7	6.7	6.7	6.4
APR 124	5.3	5.3	5.7	4.3	7.0	6.0	7.7	8.0	6.0	6.3	7.3	6.7	6.7	6.3
NIGHT HAWK	6.3	5.7	5.7	2.7	7.0	6.0	8.3	8.0	5.7	6.7	7.0	6.3	6.7	6.3
WVPB-ER-C-2	6.0	5.3	6.0	3.7	6.3	6.3	8.0	8.0	5.7	6.7	6.7	7.0	6.3	6.3
WILLIAMSBURG	6.0	5.3	5.7	3.0	7.3	6.0	7.0	8.0	6.0	7.0	7.0	6.7	6.3	6.3
DSV NA 9402	5.7	5.3	5.7	3.0	6.0	6.7	9.0	7.7	5.3	6.3	7.0	6.0	7.0	6.2
FIGARO	5.7	6.0	5.3	1.7	6.3	7.0	7.0	8.0	5.7	6.0	7.0	6.3	7.0	6.1
PENNFINE	4.7	7.3	5.7	2.7	5.7	6.0	7.7	8.0	6.3	6.0	6.3	6.3	6.3	6.1
DSV NA 9401	5.0	5.3	5.3	2.3	6.0	6.3	7.3	8.0	5.3	6.7	6.7	6.0	6.7	5.9
LINN	3.7	7.7	3.3	1.0	5.3	5.7	7.3	8.0	4.7	6.3	6.0	3.7	5.0	5.2
LSD VALUE	1.4	1.2	1.0	2.2	0.8	0.9	1.6	0.5	1.6	0.9	0.7	0.7	0.6	0.3
C.V. (%)	13.0	12.8	9.8	27.9	6.5	9.0	12.2	3.8	16.2	7.9	6.3	6.0	5.3	10.9

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

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

TABLE 7. WEAR TOLERANCE RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
WEAR TOLERANCE RATINGS 1-9; 9=MAXIMUM TOLERANCE 2/

NAME	NJ1	NAME	NJ1
BLACKHAWK (TMI-EXFLP94)	5.3	SATURN II (ZPS-2ST)	3.7
SUNSHINE (PICK LP 102-92)	5.3	SPELL BOUND (WVPB-93-KFK)	3.7
MANHATTAN 3	5.0	SR 4400 (SRX 4400)	3.7
MONTEREY (J-1706)	5.0	STALLION SELECT	3.7
PALMER III (LRF-94-MPRH)	5.0	WVPB-PR-C-2	3.7
WIND STAR (PST-28M)	5.0	ACCENT	3.3
CATALINA (PST-GH-94)	4.7	APR 131	3.3
EDGE	4.7	CHAPARRAL (PST-2DLM)	3.3
IRF-94-C8	4.7	CUTTER	3.3
PANTHER (ZPS-PR1)	4.7	EXPRESS	3.3
SR 4200	4.7	MAJESTY (MB 43)	3.3
ACADEMY (PC-93-1)	4.3	PS-D-9	3.3
ACHIEVER	4.3	REPELL III (LRF-94-C7)	3.3
BRIGHTSTAR II (PST-2M3)	4.3	WX3-93	3.3
CALYPSO II	4.3	APR 066	3.0
DERBY SUPREME (ISI-MHB)	4.3	BAR ER 5813	3.0
ESQUIRE	4.3	BLAZER III (PICK 928)	3.0
PENNANT II (MB 42)	4.3	ELF	3.0
FRIZM	4.3	LEGACY II (LESCO-TWF)	3.0
R2 (ISI-R2)	4.3	PASSPORT (PST-2FF)	3.0
RIVIERA II	4.3	PEGASUS	3.0
SR 4010 (SRX 4010)	4.3	PREMIER II (BAR USA 94-II)	3.0
STALLION SUPREME (PSI-E-1)	4.3	PST-2CB	3.0
VIVID	4.3	QUICKSTART	3.0
WX3-91	4.3	RADIANT (MB 44)	3.0
ASSURE	4.0	SATURN	3.0
MARDIGRAS (ZPS-2NV)	4.0	SONATA (PST-2R3)	3.0
M/F-4-1	4.0	TOP HAT	3.0
NIGHT HAWK	4.0	WIND DANCE (MB 46)	3.0
NOBILITY	4.0	ADVANTAGE	2.7
OMEGA3 (ZPS-2DR-94)	4.0	ASCEND (MB 45)	2.7
OMNI	4.0	BRIGHTSTAR	2.7
PRELUDE III (LRF-94-B6)	4.0	DSV NA 9402	2.7
ROADRUNNER (PST-2ET)	4.0	LINE DRIVE (MB 47)	2.7
SECRETARIAT (RPBD)	4.0	PENNFINE	2.7
TOP GUN (J-1703)	4.0	STARDANCE (PST-2FE)	2.7
WILLIAMSBURG	4.0	WIZARD (MB 41)	2.7
APR 124	3.7	DANCER	2.3
ASP400 (APR 106)	3.7	DLP 1305	2.3
BUCCANEER II (WVPB 92-4)	3.7	DSV NA 9401	2.3
CADDIESHACK (MED 5071)	3.7	EXCEL (MB 1-5)	2.3
CAS-LP23	3.7	HEAD START (PICK PR 84-91)	2.3
CITATION III (PST-2DGR)	3.7	LAREDO	2.3
DIVINE	3.7	FIGARO	2.0
IMAGINE	3.7	NINE-O-ONE	2.0
KOOS 93-6	3.7	LINN	1.7
MORNING STAR	3.7		
NAVAJO	3.7	LSD VALUE	1.8
PRECISION	3.7	C.V. (%)	30.4
PROTOCOL (KOOS 93-3)	3.7		

- 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.

 SPRING DENSITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 1998 DATA  
 DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	NE1	OK1	QE1	WA3	MEAN	NAME	NE1	OK1	QE1	WA3	MEAN
LAREDO	9.0	8.0	7.0	6.0	7.5	OMNI	9.0	7.7	5.3	6.0	7.0
PRIZM	9.0	7.7	7.3	6.0	7.5	PRECISION	8.7	7.3	5.7	6.3	7.0
SATURN II (ZPS-2ST)	9.0	8.0	7.0	6.0	7.5	SECRETARIAT (RPBD)	9.0	7.0	7.0	5.0	7.0
DLP 1305	9.0	7.7	6.3	6.7	7.4	SUNSHINE (PICK LP 102-92)	9.0	7.3	6.0	5.7	7.0
PALMER III (LRF-94-MPRH)	9.0	7.7	7.0	6.0	7.4	WILLIAMSBURG	9.0	7.7	6.3	5.0	7.0
PANTHER (ZPS-PR1)	9.0	7.3	7.0	6.3	7.4	APR 124	8.7	8.0	6.3	5.0	7.0
OMEGA3 (ZPS-2DR-94)	9.0	7.7	7.0	5.7	7.3	KOOS 93-6	9.0	7.3	6.3	5.3	7.0
PASSPORT (PST-2FF)	9.0	7.7	6.7	6.0	7.3	MAJESTY (MB 43)	9.0	7.3	6.3	5.3	7.0
BAR ER 5813	8.7	8.0	6.7	6.0	7.3	PRELUDE III (LRF-94-B6)	9.0	7.3	6.3	5.3	7.0
CATALINA (PST-GH-94)	9.0	7.7	6.3	6.3	7.3	VIVID	8.3	8.0	5.7	5.7	6.9
SPELL BOUND (WVPB-93-KFK)	8.7	7.7	6.7	6.3	7.3	DANCER	9.0	8.0	5.7	5.0	6.9
TOP GUN (J-1703)	9.0	8.0	6.3	6.0	7.3	IMAGINE	9.0	7.7	4.7	6.3	6.9
CALYPSO II	9.0	7.7	5.7	6.7	7.3	PEGASUS	8.7	7.7	5.7	5.7	6.9
EXCEL (MB 1-5)	9.0	7.7	6.7	5.7	7.3	REPELL III (LRF-94-C7)	9.0	7.7	4.7	6.3	6.9
BLACKHAWK (IMI-EXFLP94)	9.0	8.0	6.3	5.7	7.3	SR 4200	8.3	7.7	6.0	5.7	6.9
HEAD START (PICK PR 84-91)	9.0	7.7	6.3	6.0	7.3	WIZARD (MB 41)	9.0	7.3	5.7	5.7	6.9
LRF-94-C8	9.0	7.3	6.7	6.0	7.3	WX3-91	9.0	7.3	6.7	4.7	6.9
NAVAJO	9.0	7.7	6.3	6.0	7.3	WX3-93	9.0	7.7	5.3	5.7	6.9
NIGHT HAWK	9.0	7.7	6.0	6.3	7.3	BUCCANEER II (WVPB 92-4)	8.7	7.3	6.3	5.3	6.9
TOP HAT	9.0	8.0	5.7	6.3	7.3	EXPRESS	8.3	7.3	6.0	5.7	6.8
DERBY SUPREME (ISI-MHB)	9.0	7.7	6.7	5.3	7.2	PREMIER II (BAR USA 94-II)	9.0	7.0	5.7	5.7	6.8
EDGE	8.7	7.7	6.7	5.7	7.2	PS-D-9	9.0	7.7	5.7	5.0	6.8
ESQUIRE	9.0	8.0	5.7	6.0	7.2	WIND STAR (PST-28M)	8.3	7.7	5.7	5.7	6.8
RADIANT (MB 44)	9.0	7.7	5.7	6.3	7.2	ACHIEVER	8.7	7.7	6.0	5.0	6.8
SONATA (PST-2R3)	9.0	7.7	6.7	5.3	7.2	APR 066	8.7	7.7	6.7	4.3	6.8
WVPB-PR-C-2	9.0	7.3	6.7	5.7	7.2	CHAPARRAL (PST-2DLM)	8.7	7.7	5.0	6.0	6.8
ASCEND (MB 45)	9.0	7.3	6.0	6.3	7.2	CITATION III (PST-2DGR)	8.7	7.3	6.0	5.3	6.8
MORNING STAR	8.7	7.7	6.3	6.0	7.2	DSV NA 9401	8.7	7.7	6.0	5.0	6.8
PENNANT II (MB 42)	9.0	7.3	6.0	6.3	7.2	ELF	8.7	6.7	6.3	5.7	6.8
SATURN	8.7	7.3	6.3	6.3	7.2	NOBILITY	8.7	7.3	6.3	5.0	6.8
SR 4400 (SRX 4400)	9.0	8.0	6.3	5.3	7.2	SR 4010 (SRX 4010)	9.0	8.0	5.3	5.0	6.8
STALLION SUPREME (PSI-E-1)	9.0	8.0	6.3	5.3	7.2	ACADEMY (PC-93-1)	8.7	7.7	5.7	5.0	6.8
WIND DANCE (MB 46)	9.0	7.0	6.3	6.3	7.2	BLAZER III (PICK 928)	8.7	7.3	5.0	6.0	6.8
APR 131	9.0	8.0	6.7	4.7	7.1	BRIGHTSTAR II (PST-2M3)	8.3	7.7	5.0	6.0	6.8
BRIGHTSTAR	9.0	8.0	5.7	5.7	7.1	CUTTER	8.3	7.7	5.7	5.3	6.8
DIVINE	9.0	8.0	6.7	4.7	7.1	PROTOCOL (KOOS 93-3)	8.3	7.0	5.7	5.7	6.7
MVF-4-1	9.0	7.7	6.0	5.7	7.1	PST-2CB	8.7	7.3	5.7	5.0	6.7
RIVIERA II	9.0	7.7	6.0	5.7	7.1	CAS-LP23	8.7	7.0	5.7	5.3	6.7
STALLION SELECT	8.3	8.0	6.3	5.7	7.1	LEGACY II (LESCO-TWF)	8.7	7.3	5.3	5.0	6.6
ACCENT	9.0	8.0	5.3	6.0	7.1	R2 (ISI-R2)	8.7	7.7	5.0	5.0	6.6
ASP400 (APR 106)	9.0	7.3	6.3	5.7	7.1	ROADRUNNER (PST-2ET)	8.3	8.0	5.7	4.0	6.5
ASSURE	8.7	8.0	5.7	6.0	7.1	FIGARO	8.0	7.3	6.0	4.7	6.5
CADDIESHACK (MED 5071)	8.7	7.7	5.3	6.7	7.1	QUICKSTART	8.7	7.3	6.0	4.0	6.5
MARDIGRAS (ZPS-2NV)	8.7	7.3	6.3	6.0	7.1	STARDANCE (PST-2FE)	8.7	7.3	5.0	4.7	6.4
MONTEREY (J-1706)	9.0	7.3	6.0	6.0	7.1	PENNFINE	7.7	7.3	6.0	4.0	6.3
LINE DRIVE (MB 47)	9.0	7.7	5.7	5.7	7.0	LINN	6.0	6.3	4.3	3.0	4.9
ADVANTAGE	9.0	7.7	5.3	6.0	7.0						
DSV NA 9402	9.0	7.7	6.0	5.3	7.0	LSD VALUE	0.6	0.8	1.8	1.0	0.6
MANHATTAN 3	8.7	8.0	5.7	5.7	7.0	C.V. (%)	4.2	6.5	18.9	11.1	10.3
NINE-O-ONE	8.7	7.3	6.0	6.0	7.0						

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

TABLE 9.

SUMMER DENSITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	AR1	NE1	OK1	QE1	WA3	MEAN	NAME	AR1	NE1	OK1	QE1	WA3	MEAN
PREMIER II (BAR USA 94-II)	7.7	8.3	7.3	7.7	8.3	7.9	PRECISION	6.7	8.0	6.7	7.0	8.0	7.3
ASP400 (APR 106)	6.3	8.7	8.0	8.0	8.0	7.8	STALLION SELECT	5.7	7.3	8.0	8.0	7.3	7.3
PANTHER (ZPS-PR1)	6.7	8.0	8.3	8.0	8.0	7.8	WILLIAMSBURG	5.0	7.7	8.0	7.7	8.0	7.3
SR 4400 (SRX 4400)	6.7	8.0	8.0	8.3	8.0	7.8	WX3-93	6.0	7.7	7.3	7.7	7.7	7.3
WIZARD (MB 41)	8.0	7.7	7.3	8.0	7.7	7.7	BRIGHTSTAR	6.0	7.3	7.7	7.3	8.0	7.3
PRIZM	6.0	8.3	7.7	8.0	8.3	7.7	CALYPSO II	6.3	7.7	7.3	7.0	8.0	7.3
SR 4200	7.0	7.3	8.0	7.7	8.3	7.7	IMAGINE	6.3	8.0	7.3	6.3	8.3	7.3
CATALINA (PST-GH-94)	7.0	8.3	8.3	6.7	7.7	7.6	LEGACY II (LESCO-TWF)	7.0	7.0	7.0	7.3	8.0	7.3
CITATION III (PST-2DGR)	7.0	8.3	7.3	7.3	8.0	7.6	LRF-94-C8	7.0	7.3	7.0	7.3	7.7	7.3
MAJESTY (MB 43)	8.3	7.3	7.0	7.3	8.0	7.6	VIVID	6.0	7.0	8.0	7.3	8.0	7.3
PASSPORT (PST-2FF)	6.3	8.0	7.3	8.3	8.0	7.6	WVPB-PR-C-2	6.3	7.3	7.0	7.7	8.0	7.3
RADIANT (MB 44)	7.7	7.3	7.7	7.3	8.0	7.6	ACHIEVER	6.3	7.3	7.0	7.0	8.3	7.2
SECRETARIAT (RPBD)	6.0	8.3	7.7	8.3	7.7	7.6	APR 066	6.0	7.0	7.7	8.0	7.3	7.2
WIND STAR (PST-28M)	7.0	7.3	7.3	8.3	8.0	7.6	EXCEL (MB 1-5)	6.0	7.3	7.0	7.3	8.3	7.2
ASCEND (MB 45)	7.0	7.3	7.7	7.7	8.0	7.5	LINE DRIVE (MB 47)	6.7	7.3	7.3	7.0	7.7	7.2
BLACKHAWK (TMI-EXFLP94)	6.7	7.7	8.3	7.0	8.0	7.5	SR 4010 (SRX 4010)	6.7	7.7	7.7	6.3	7.7	7.2
DERBY SUPREME (ISI-MHB)	6.3	7.7	7.7	8.0	8.0	7.5	SUNSHINE (PICK LP 102-92)	7.0	7.3	8.0	6.3	7.3	7.2
REPELL III (LRF-94-C7)	7.0	8.7	7.3	6.7	8.0	7.5	WX3-91	6.3	7.0	7.7	7.0	8.0	7.2
RIVIERA II	6.3	8.3	7.3	7.7	8.0	7.5	ADVANTAGE	6.0	7.7	7.0	7.0	8.0	7.1
ACCENT	7.3	8.3	8.0	6.3	7.7	7.5	EDGE	6.7	7.0	7.0	7.0	8.0	7.1
BAR ER 5813	6.3	9.0	7.3	7.0	8.0	7.5	OMNI	6.3	6.7	7.7	7.0	8.0	7.1
BRIGHTSTAR II (PST-2M3)	7.0	8.0	7.3	7.0	8.3	7.5	ESQUIRE	5.3	7.0	7.7	7.3	8.3	7.1
MONTEREY (J-1706)	7.0	8.0	7.3	7.3	8.0	7.5	R2 (ISI-R2)	6.7	7.3	7.3	6.7	7.7	7.1
NOBILITY	6.7	7.7	7.7	8.0	7.7	7.5	ROADRUNNER (PST-2ET)	6.3	7.0	7.7	6.3	8.3	7.1
PENNANT II (MB 42)	6.7	7.3	7.3	8.0	8.3	7.5	CAS-LP23	5.7	7.7	7.7	7.0	7.3	7.1
DIVINE	5.3	8.3	8.3	8.0	7.3	7.5	NAVAJO	5.7	7.3	7.0	7.7	7.7	7.1
ELF	6.3	8.3	6.7	7.7	8.3	7.5	PRELUDE III (LRF-94-B6)	6.0	7.7	7.3	6.7	7.7	7.1
MARDIGRAS (ZPS-2NV)	6.3	7.7	7.0	8.3	8.0	7.5	DLP 1305	6.0	7.3	7.7	7.3	7.0	7.1
PALMER III (LRF-94-MPRH)	6.0	8.0	7.0	8.0	8.3	7.5	STARDANCE (PST-2FE)	6.7	8.0	6.3	6.3	8.0	7.1
SONATA (PST-2R3)	6.3	8.0	7.7	7.7	7.7	7.5	TOP GUN (J-1703)	6.3	7.0	7.7	6.3	8.0	7.1
SPELL BOUND (WVPB-93-KFK)	5.7	8.0	8.3	7.7	7.7	7.5	WIND DANCE (MB 46)	7.7	7.3	6.3	6.3	7.7	7.1
TOP HAT	6.3	8.3	7.7	6.7	8.3	7.5	NIGHT HAWK	5.3	7.3	7.3	7.0	8.0	7.0
KOOS 93-6	6.0	8.3	7.7	7.3	8.0	7.5	NINE-O-ONE	6.3	7.0	7.0	6.7	8.0	7.0
MANHATTAN 3	6.0	8.0	8.0	7.3	8.0	7.5	PEGASUS	5.7	7.0	7.7	7.3	7.3	7.0
MVF-4-1	7.0	7.3	7.7	7.3	8.0	7.5	PROTOCOL (KOOS 93-3)	6.0	7.0	6.7	7.7	7.7	7.0
APR 131	6.3	7.3	8.0	7.7	7.7	7.4	SATURN	6.0	8.0	7.0	6.3	7.7	7.0
ASSURE	6.0	8.0	8.3	7.0	7.7	7.4	APR 124	6.0	7.7	7.0	6.0	8.0	6.9
CUTTER	5.7	8.3	7.7	7.7	7.7	7.4	BLAZER III (PICK 928)	6.7	7.3	7.0	6.0	7.7	6.9
HEAD START (PICK PR 84-91)	6.3	8.3	7.3	7.0	8.0	7.4	EXPRESS	5.3	6.7	7.3	7.7	7.7	6.9
SATURN II (ZPS-2ST)	6.3	8.7	7.3	7.0	7.7	7.4	PST-2CB	5.7	7.3	7.3	7.0	7.3	6.9
ACADEMY (PC-93-1)	6.0	7.7	7.7	7.7	7.7	7.3	DANCER	7.0	5.0	7.0	7.3	7.7	6.8
CHAPARRAL (PST-2DLM)	6.7	8.0	7.0	6.7	8.3	7.3	DSV NA 9402	5.3	7.3	6.7	7.3	7.3	6.8
LAREDO	5.3	7.7	7.7	8.0	8.0	7.3	PENNFINE	5.0	6.7	7.7	7.3	7.0	6.7
QUICKSTART	6.0	8.0	7.7	8.0	7.0	7.3	DSV NA 9401	4.7	6.3	6.7	7.7	7.0	6.5
CADDIESHACK (MED 5071)	6.0	8.3	8.3	6.3	7.7	7.3	FIGARO	4.7	6.0	7.7	7.3	6.3	6.4
PS-D-9	6.7	7.7	7.3	7.3	7.7	7.3	LINN	4.3	1.0	6.7	6.7	6.3	5.0
STALLION SUPREME (PSI-E-1)	6.3	7.3	7.7	7.7	7.7	7.3							
BUCCANEER II (WVPB 92-4)	6.0	7.0	7.7	8.3	7.3	7.3	LSA VALUE	1.7	1.2	1.3	2.0	0.8	0.7
MORNING STAR	5.7	7.0	8.0	7.7	8.0	7.3	C.V. (%)	16.9	10.3	10.9	17.3	6.3	12.6
OMEGA3 (ZPS-2DR-94)	5.0	8.0	7.3	7.7	8.3	7.3							

- 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.

FALL DENSITY RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	IL1	NE1	OK1	QE1	WA3	MEAN	NAME	IL1	NE1	OK1	QE1	WA3	MEAN
PENNANT II (MB 42)	6.7	9.0	8.3	7.0	7.3	7.7	CUTTER	6.0	9.0	7.3	6.7	7.0	7.2
SECRETARIAT (RPBD)	7.0	9.0	8.3	7.0	7.0	7.7	EDGE	6.3	9.0	7.3	6.0	7.3	7.2
ASCEND (MB 45)	6.7	9.0	7.7	7.0	7.7	7.6	IMAGINE	7.0	8.3	7.7	6.0	7.0	7.2
DERBY SUPREME (ISI-MHB)	6.7	9.0	8.0	6.3	8.0	7.6	LRF-94-C8	6.7	8.3	8.0	6.3	6.7	7.2
SR 4400 (SRX 4400)	7.0	9.0	8.0	6.7	7.0	7.5	MANHATTAN 3	5.7	8.7	8.0	6.7	7.0	7.2
SUNSHINE (PICK LP 102-92)	6.7	9.0	8.3	6.7	7.0	7.5	MONTEREY (J-1706)	6.3	8.3	8.0	6.3	7.0	7.2
ASP400 (APR 106)	6.3	9.0	8.0	6.7	7.7	7.5	MVF-4-1	6.7	9.0	8.0	5.7	6.7	7.2
LAREDO	6.3	8.3	8.3	7.0	7.7	7.5	PEGASUS	6.7	8.0	7.7	6.7	7.0	7.2
PALMER III (LRF-94-MPRH)	6.7	8.7	8.3	6.3	7.7	7.5	PS-D-9	6.7	8.7	7.3	6.3	7.0	7.2
PANTHER (ZPS-PR1)	6.3	9.0	8.0	6.7	7.7	7.5	SATURN II (ZPS-2ST)	6.7	8.3	7.7	6.0	7.3	7.2
PRIZM	6.3	9.0	8.3	6.7	7.3	7.5	SR 4200	6.7	8.7	7.7	6.3	6.7	7.2
WIZARD (MB 41)	6.3	9.0	8.0	7.0	7.3	7.5	STALLION SELECT	6.7	8.7	7.7	6.0	7.0	7.2
BLACKHAWK (TMI-EXFLP94)	7.0	8.3	8.3	6.7	7.0	7.5	MORNING STAR	5.7	8.7	7.7	6.7	7.0	7.1
OMEGA3 (ZPS-2DR-94)	6.3	8.7	7.7	6.7	8.0	7.5	NOBILITY	6.3	8.3	7.3	6.7	7.0	7.1
PASSPORT (PST-2FF)	7.0	9.0	7.7	7.0	6.7	7.5	PROTOCOL (KOOS 93-3)	6.7	8.0	7.3	6.7	7.0	7.1
CALYPSO II	6.7	9.0	8.3	6.3	7.0	7.5	BAR ER 5813	6.7	8.3	7.7	6.3	6.7	7.1
MARDIGRAS (ZPS-2NV)	6.3	9.0	8.3	6.7	7.0	7.5	CHAPARRAL (PST-2DLM)	6.3	8.0	8.0	6.0	7.3	7.1
PREMIER II (BAR USA 94-II)	6.0	8.7	8.0	7.0	7.7	7.5	ESQUIRE	7.0	8.0	7.3	6.3	7.0	7.1
REPELL III (LRF-94-C7)	7.0	8.7	8.0	6.3	7.3	7.5	LEGACY II (LESCO-TWF)	6.3	8.7	7.3	7.0	6.3	7.1
SONATA (PST-2R3)	6.7	8.7	8.0	7.0	7.0	7.5	NAVAJO	6.0	8.7	7.7	6.3	7.0	7.1
ACCENT	6.7	9.0	8.0	5.7	7.7	7.4	R2 (ISI-R2)	7.0	8.7	7.0	6.7	6.3	7.1
ASSURE	6.7	8.7	8.0	6.0	7.7	7.4	ROADRUNNER (PST-2ET)	6.7	8.7	8.3	5.7	6.3	7.1
BRIGHTSTAR	6.7	9.0	8.0	6.7	6.7	7.4	TOP GUN (J-1703)	6.3	8.7	8.0	6.0	6.7	7.1
BRIGHTSTAR II (PST-2M3)	6.3	8.0	8.3	6.7	7.7	7.4	WILLIAMSBURG	5.7	8.7	8.0	6.7	6.7	7.1
CATALINA (PST-GH-94)	6.0	8.7	8.3	6.7	7.3	7.4	APR 066	6.0	8.3	7.7	7.0	6.3	7.1
HEAD START (PICK ER 84-91)	7.0	9.0	8.0	6.3	6.7	7.4	EXPRESS	6.0	8.3	7.3	6.7	7.0	7.1
OMNI	6.7	9.0	7.7	6.3	7.3	7.4	PRECISION	6.0	9.0	7.7	6.0	6.7	7.1
TOP HAT	7.3	8.3	8.3	6.0	7.0	7.4	PST-2CB	6.0	8.7	7.7	6.7	6.3	7.1
LINE DRIVE (MB 47)	6.3	8.7	8.0	6.7	7.0	7.3	QUICKSTART	6.7	9.0	7.7	6.0	6.0	7.1
MAJESTY (MB 43)	6.7	9.0	7.7	7.0	6.3	7.3	VIVID	6.3	8.7	7.7	6.0	6.7	7.1
RIVIERA II	5.7	9.0	8.3	6.7	7.0	7.3	WX3-91	6.0	8.0	7.7	6.3	7.3	7.1
BUCCANEER II (WVPB 92-4)	6.7	8.7	7.3	6.7	7.3	7.3	WX3-93	6.3	8.0	7.7	6.7	6.7	7.1
DIVINE	6.3	9.0	8.0	6.7	6.7	7.3	ELF	6.3	8.0	7.3	6.7	7.0	7.1
KOOS 93-6	6.7	8.0	8.3	6.3	7.3	7.3	PRELUDE III (LRF-94-B6)	7.0	8.7	7.3	6.3	6.0	7.1
NIGHT HAWK	6.3	8.7	8.0	6.3	7.3	7.3	RADIANT (MB 44)	6.0	8.7	7.3	6.3	7.0	7.1
STALLION SUPREME (PSI-E-1)	6.0	8.7	8.0	6.7	7.3	7.3	APR 131	6.0	8.3	7.7	6.3	6.7	7.0
WIND STAR (PST-28M)	6.0	8.7	8.0	7.0	7.0	7.3	NINE-O-ONE	6.0	8.0	7.7	6.0	7.3	7.0
ACHIEVER	6.0	8.7	7.7	6.7	7.3	7.3	APR 124	5.7	8.3	8.0	6.0	6.7	6.9
BLAZER III (PICK 928)	6.3	8.7	7.7	6.3	7.3	7.3	STARDANCE (PST-2FE)	5.7	8.3	7.3	6.3	7.0	6.9
CADDIESHACK (MED 5071)	6.3	8.7	8.3	6.3	6.7	7.3	DANCER	6.0	7.7	7.3	6.3	6.3	6.7
SPELL BOUND (WVPB-93-KFK)	6.3	8.3	7.7	6.7	7.3	7.3	DLP 1305	4.0	8.3	7.7	7.0	6.3	6.7
SR 4010 (SRX 4010)	7.0	9.0	7.7	6.0	6.7	7.3	FIGARO	5.3	6.0	7.7	6.3	7.0	6.5
WIND DANCE (MB 46)	6.7	9.0	7.7	6.3	6.7	7.3	DSV NA 9401	4.3	7.0	6.7	6.7	7.3	6.4
WVPB-PR-C-2	6.3	9.0	7.7	6.0	7.3	7.3	PENNFINE	5.7	7.0	7.3	5.7	6.0	6.3
ACADEMY (PC-93-1)	6.7	8.7	7.7	6.3	7.0	7.3	DSV NA 9402	4.3	7.0	7.0	6.3	7.0	6.3
CITATION III (PST-2DGR)	6.3	8.7	8.0	6.3	7.0	7.3	LINN	3.0	3.7	7.0	5.3	5.0	4.8
EXCEL (MB 1-5)	6.0	9.0	8.0	6.3	7.0	7.3							
SATURN	6.3	9.0	8.0	6.0	7.0	7.3	LSD VALUE	1.1	0.8	0.8	1.0	0.9	0.4
ADVANTAGE	6.7	8.3	7.7	6.3	7.0	7.2	C.V. (%)	10.8	6.0	6.3	9.3	7.8	7.9
CAS-LP23	6.0	8.7	8.0	6.3	7.0	7.2							

- 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 11. PERCENT LIVING GROUND COVER (SPRING) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 1998 DATA  
 PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	OK1	NAME	OK1
ACADEMY (PC-93-1)	99.0	NINE-O-ONE	96.3
ACCENT	99.0	PALMER III (LRF-94-MPRH)	96.3
APR 131	99.0	PANTHER (ZPS-PR1)	96.3
BLACKHAWK (TMI-EXFLP94)	99.0	PASSPORT (PST-2FF)	96.3
ESQUIRE	99.0	SUNSHINE (PICK LP 102-92)	96.3
OMEGA3 (ZPS-2DR-94)	99.0	WIND STAR (PST-28M)	96.3
SPELL BOUND (WVPB-93-KFK)	99.0	KOOS 93-6	96.0
STALLION SELECT	99.0	NIGHT HAWK	96.0
WILLIAMSBURG	99.0	SATURN II (ZPS-2ST)	96.0
BAR ER 5813	98.3	STALLION SUPREME (PSI-E-1)	96.0
MORNING STAR	98.3	MAJESTY (MB 43)	95.7
NOBILITY	98.3	PRECISION	95.7
SR 4010 (SRX 4010)	98.3	OMNI	95.3
TOP HAT	98.3	TOP GUN (J-1703)	95.3
ACHIEVER	97.7	LRF-94-C8	95.0
ADVANTAGE	97.7	APR 124	94.7
BRIGHTSTAR	97.7	ASCEND (MB 45)	94.7
BUCCANEER II (WVPB 92-4)	97.7	CITATION III (PST-2DGR)	94.7
CADDIESHACK (MED 5071)	97.7	PREMIER II (BAR USA 94-II)	94.7
CALYPSO II	97.7	PROTOCOL (KOOS 93-3)	94.7
DLP 1305	97.7	RIVIERA II	94.7
EDGE	97.7	APR 066	94.3
EXPRESS	97.7	HEAD START (PICK PR 84-91)	94.3
LAREDO	97.7	MARDIGRAS (ZPS-2NV)	94.3
LEGACY II (LESCO-TWF)	97.7	PRELUDE III (LRF-94-B6)	94.3
MANHATTAN 3	97.7	PRIZM	94.3
PEGASUS	97.7	WIZARD (MB 41)	94.3
PENNFINE	97.7	CATALINA (PST-GH-94)	94.0
PS-D-9	97.7	DSV NA 9401	94.0
SR 4200	97.7	LINN	94.0
SR 4400 (SRX 4400)	97.7	PENNANT II (MB 42)	94.0
VIVID	97.7	R2 (ISI-R2)	94.0
WVPB-PR-C-2	97.7	LINE DRIVE (MB 47)	93.7
ASSURE	97.0	DANCER	93.3
BLAZER III (PICK 928)	97.0	EXCEL (MB 1-5)	93.3
DERBY SUPREME (ISI-MHB)	97.0	SECRETARIAT (RPED)	93.0
DIVINE	97.0	ASP400 (APR 106)	92.7
FIGARO	97.0	CHAPARRAL (PST-2DLM)	92.3
IMAGINE	97.0	NAVAJO	90.3
RADIANT (MB 44)	97.0	ELF	90.0
REPELL III (LRF-94-C7)	97.0	QUICKSTART	89.7
ROADRUNNER (PST-2ET)	97.0	WIND DANCE (MB 46)	88.3
SATURN	97.0	PST-2CB	86.7
WX3-91	97.0	SONATA (PST-2R3)	86.7
MVF-4-1	96.7	MONTEREY (J-1706)	84.0
WX3-93	96.7	STARDANCE (PST-2FE)	83.3
BRIGHTSTAR II (PST-2M3)	96.3		
CAS-LP23	96.3	LSD VALUE	7.6
CUTTER	96.3	C.V. (%)	4.9
DSV NA 9402	96.3		

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 12. PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 2/

NAME	AR1	OK1	MEAN	NAME	AR1	OK1	MEAN
PENNANT II (MB 42)	78.3	80.0	79.2	PANTHER (ZPS-PR1)	30.0	92.7	61.3
WIZARD (MB 41)	68.3	88.3	78.3	SUNSHINE (PICK LP 102-92)	31.7	91.0	61.3
WILLIAMSBURG	58.7	95.7	77.2	CUTTER	33.3	89.0	61.2
BLACKHAWK (TMI-EXFLP94)	58.3	95.0	76.7	WVPB-PR-C-2	31.7	90.0	60.8
PST-2CB	78.3	75.0	76.7	EDGE	33.3	88.0	60.7
NOBILITY	55.0	97.7	76.3	APR 066	35.0	86.0	60.5
MAJESTY (MB 43)	71.7	80.3	76.0	TOP HAT	40.0	81.0	60.5
MVF-4-1	58.3	93.3	75.8	LINE DRIVE (MB 47)	36.7	84.0	60.3
BUCCANEER II (WVPB 92-4)	58.3	93.0	75.7	IMAGINE	38.3	81.7	60.0
KOOS 93-6	56.7	94.0	75.3	LAREDO	38.3	81.7	60.0
RIVIERA II	56.7	92.3	74.5	CHAPARRAL (PST-2DIM)	43.3	75.0	59.2
ASSURE	53.3	93.0	73.2	HEAD START (PICK ER 84-91)	43.3	74.3	58.8
PENNFINE	55.0	90.0	72.5	ADVANTAGE	26.7	90.7	58.7
R2 (ISI-R2)	63.3	79.3	71.3	DERBY SUPREME (ISI-MHB)	36.7	80.7	58.7
ESQUIRE	56.7	85.7	71.2	CITATION III (PST-2DGR)	30.0	86.7	58.3
SPELL BOUND (WVPB-93-KFK)	45.0	97.3	71.2	ASCEND (MB 45)	55.0	61.7	58.3
SR 4200	46.7	94.3	70.5	MONTEREY (J-1706)	35.0	80.0	57.5
ACHIEVER	50.0	90.3	70.2	WX3-91	20.0	94.3	57.2
PALMER III (LRF-94-MERH)	53.3	86.7	70.0	REPELL III (LRF-94-C7)	31.7	81.7	56.7
CAS-LP23	48.3	91.3	69.8	OMEGA3 (ZPS-2DR-94)	23.3	90.0	56.7
STALLION SUPREME (PSI-E-1)	46.7	92.7	69.7	BRIGHTSTAR II (PST-2M3)	40.0	73.0	56.5
PS-D-9	45.0	94.3	69.7	WIND STAR (PST-28M)	41.7	71.3	56.5
VIVID	43.3	94.7	69.0	DANCER	50.0	62.3	56.2
SR 4010 (SRX 4010)	50.0	87.7	68.8	WIND DANCE (MB 46)	40.0	72.3	56.2
CATALINA (PST-GH-94)	48.3	89.0	68.7	WX3-93	26.7	84.7	55.7
SR 4400 (SRX 4400)	41.7	94.7	68.2	LEGACY II (LESCO-TWF)	21.7	89.3	55.5
NINE-O-ONE	55.0	80.0	67.5	APR 124	35.0	75.7	55.3
ACCENT	50.0	84.7	67.3	NIGHT HAWK	30.0	80.0	55.0
RADIANT (MB 44)	53.3	79.0	66.2	QUICKSTART	31.7	78.0	54.8
PEGASUS	50.0	82.3	66.2	PRELUDE III (LRF-94-B6)	26.7	82.7	54.7
MORNING STAR	36.7	95.3	66.0	ASP400 (APR 106)	25.0	84.0	54.5
LRF-94-C8	45.0	86.7	65.8	DSV NA 9401	46.7	61.7	54.2
ROADRUNNER (PST-2ET)	45.0	86.7	65.8	CALYPSO II	30.0	78.0	54.0
DIVINE	38.3	92.7	65.5	SATURN II (ZPS-2ST)	28.3	79.7	54.0
CADDIESHACK (MED 5071)	45.0	85.7	65.3	MANHATTAN 3	26.7	80.0	53.3
ACADEMY (PC-93-1)	41.7	88.0	64.8	PRECISION	38.3	66.7	52.5
OMNI	55.0	74.0	64.5	STARDANCE (PST-2FE)	40.0	63.3	51.7
SATURN	43.3	85.0	64.2	NAVAJO	26.7	75.0	50.8
EXCEL (MB 1-5)	73.3	55.0	64.2	ELF	33.3	68.3	50.8
STALLION SELECT	36.7	91.0	63.8	SONATA (PST-2R3)	21.7	76.7	49.2
PREMIER II (BAR USA 94-II)	38.3	89.0	63.7	DLP 1305	25.0	72.3	48.7
SECRETARIAT (RPBD)	40.0	86.7	63.3	BLAZER III (PICK 928)	38.3	55.0	46.7
EXPRESS	36.7	89.3	63.0	BRIGHTSTAR	18.3	72.7	45.5
PROTOCOL (KOOS 93-3)	45.0	81.0	63.0	DSV NA 9402	36.7	47.7	42.2
FIGARO	41.7	83.7	62.7	BAR ER 5813	20.0	60.0	40.0
PASSPORT (PST-2FF)	45.0	79.3	62.2	LINN	13.3	66.7	40.0
TOP GUN (J-1703)	41.7	82.3	62.0				
APR 131	37.0	86.3	61.7	LSD VALUE	40.9	32.6	26.1
MARDIGRAS (ZPS-2NV)	45.0	78.3	61.7	C.V. (%)	60.5	24.6	37.0
PRIZM	41.7	81.3	61.5				

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. PERCENT LIVING GROUND COVER (FALL) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/

NAME	KY1	OK1	MEAN	NAME	KY1	OK1	MEAN
WIZARD (MB 41)	91.7	94.7	93.2	ASP400 (APR 106)	71.7	83.0	77.3
SR 4010 (SRX 4010)	91.7	94.3	93.0	HEAD START (PICK PR 84-91)	71.7	83.0	77.3
PENNANT II (MB 42)	89.0	93.3	91.2	CATALINA (PST-GH-94)	58.3	96.3	77.3
BUCCANEER II (WVPB 92-4)	85.0	96.0	90.5	LEGACY II (LESCO-TWF)	64.0	90.0	77.0
MORNING STAR	89.7	91.3	90.5	APR 124	69.0	84.7	76.8
EDGE	93.7	86.3	90.0	TOP HAT	72.3	81.3	76.8
NOBILITY	84.0	96.0	90.0	ADVANTAGE	66.7	86.3	76.5
LINE DRIVE (MB 47)	85.0	94.7	89.8	WIND DANCE (MB 46)	61.7	90.0	75.8
BLACKHAWK (TMI-EXFLP94)	86.3	93.0	89.7	ASCEND (MB 45)	80.7	70.0	75.3
CUTTER	87.3	91.7	89.5	PANTHER (ZPS-PR1)	59.0	91.3	75.2
PS-D-9	85.7	93.0	89.3	IMAGINE	81.7	68.3	75.0
EXPRESS	87.0	89.7	88.3	CALYPSO II	68.3	81.3	74.8
APR 131	93.7	82.7	88.2	R2 (ISI-R2)	79.3	70.0	74.7
PRELUDE III (LRF-94-B6)	85.7	90.0	87.8	LAREDO	73.0	76.0	74.5
ACHIEVER	81.7	93.0	87.3	TOP GUN (J-1703)	72.0	76.7	74.3
KOOS 93-6	82.3	91.3	86.8	OMEGA3 (ZPS-2DR-94)	60.0	88.3	74.2
MANHATTAN 3	81.7	91.7	86.7	CHAPARRAL (PST-2DLM)	61.7	86.3	74.0
STALLION SELECT	81.7	91.7	86.7	VIVID	66.7	81.3	74.0
ASSURE	78.3	95.0	86.7	ROADRUNNER (PST-2ET)	58.0	89.7	73.8
PASSPORT (PST-2FF)	84.7	88.0	86.3	WX3-91	51.7	94.7	73.2
PRECISION	91.0	81.7	86.3	SR 4200	67.3	78.0	72.7
MAJESTY (MB 43)	82.0	90.0	86.0	CITATION III (PST-2DGR)	52.3	91.3	71.8
REPELL III (LRF-94-C7)	81.7	89.7	85.7	WIND STAR (PST-28M)	59.7	83.0	71.3
SR 4400 (SRX 4400)	76.7	94.7	85.7	APR 066	48.3	91.3	69.8
DIVINE	76.7	93.0	84.8	MVF-4-1	51.7	86.7	69.2
MONTEREY (J-1706)	82.7	86.3	84.5	BRIGHTSTAR II (PST-2M3)	61.7	76.0	68.8
PREMIER II (BAR USA 94-II)	75.7	93.3	84.5	BLAZER III (PICK 928)	65.0	68.3	66.7
STALLION SUPREME (ESI-E-1)	75.7	93.0	84.3	NAVAJO	50.0	83.3	66.7
MARDIGRAS (ZPS-2NV)	77.3	91.3	84.3	SATURN	40.0	91.3	65.7
PST-2CB	75.7	89.7	82.7	BRIGHTSTAR	44.0	86.3	65.2
CAS-LP23	72.3	93.0	82.7	WVPB-PR-C-2	40.7	84.7	62.7
SUNSHINE (PICK LP 102-92)	74.0	91.3	82.7	WX3-93	49.0	74.7	61.8
CADDIESHACK (MED 5071)	75.7	89.3	82.5	EXCEL (MB 1-5)	48.3	63.3	55.8
RIVIERA II	79.0	86.0	82.5	PEGASUS	31.0	78.0	54.5
PRIZM	73.3	91.3	82.3	ELF	32.7	71.7	52.2
LRF-94-C8	77.3	86.7	82.0	NIGHT HAWK	20.7	83.0	51.8
RADIANT (MB 44)	75.7	86.3	81.0	DSV NA 9402	21.3	81.7	51.5
ESQUIRE	74.7	86.7	80.7	NINE-O-ONE	15.3	86.3	50.8
OMNI	71.7	89.7	80.7	STARDANCE (PST-2FE)	28.3	73.3	50.8
PROTOCOL (KOOS 93-3)	70.7	89.7	80.2	BAR ER 5813	41.7	46.7	44.2
SATURN II (ZPS-2ST)	71.7	88.0	79.8	DANCER	39.3	48.3	43.8
SECRETARIAT (RPBD)	66.7	93.0	79.8	FIGARO	13.3	70.0	41.7
ACCENT	73.3	86.3	79.8	DSV NA 9401	19.0	63.3	41.2
ACADEMY (PC-93-1)	72.3	86.7	79.5	PENNFINE	13.7	60.0	36.8
SPELL BOUND (WVPB-93-KFK)	75.7	83.3	79.5	LINN	7.0	61.7	34.3
SONATA (PST-2R3)	70.0	88.0	79.0	DLP 1305	5.3	56.7	31.0
WILLIAMSBURG	70.7	86.3	78.5				
PALMER III (LRF-94-MPRH)	60.0	96.0	78.0	LSD VALUE	30.2	29.8	21.2
DERBY SUPREME (ISI-MHB)	74.0	81.7	77.8	C.V. (%)	28.7	21.9	24.9
QUICKSTART	69.0	86.3	77.7				

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 14.

WINTER COLOR RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
WINTER COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	OK1	WA3	MEAN	NAME	OK1	WA3	MEAN
ASCEND (MB 45)	5.0	8.0	6.5	NOBILITY	5.0	7.0	6.0
BRIGHTSTAR II (PST-2M3)	5.0	8.0	6.5	OMEGA3 (ZPS-2DR-94)	5.0	7.0	6.0
DIVINE	5.0	8.0	6.5	OMNI	5.0	7.0	6.0
EXCEL (MB 1-5)	5.0	8.0	6.5	PRECISION	5.0	7.0	6.0
LINE DRIVE (MB 47)	5.0	8.0	6.5	PRIZM	5.0	7.0	6.0
LRF-94-C8	5.0	8.0	6.5	PROTOCOL (KOOS 93-3)	5.0	7.0	6.0
MAJESTY (MB 43)	5.0	8.0	6.5	R2 (ISI-R2)	5.0	7.0	6.0
PENNANT II (MB 42)	5.0	8.0	6.5	RIVIERA II	5.0	7.0	6.0
PRELUDE III (LRF-94-B6)	5.0	8.0	6.5	SATURN	5.0	7.0	6.0
REPELL III (LRF-94-C7)	5.0	8.0	6.5	SATURN II (ZPS-2ST)	5.0	7.0	6.0
WIZARD (MB 41)	5.0	8.0	6.5	SONATA (PST-2R3)	5.0	7.0	6.0
PALMER III (LRF-94-MPRH)	5.0	7.7	6.3	SPELL BOUND (WVPB-93-KFK)	5.0	7.0	6.0
RADIANT (MB 44)	4.7	8.0	6.3	SR 4200	5.0	7.0	6.0
BRIGHTSTAR	4.7	7.7	6.2	SR 4400 (SRX 4400)	5.0	7.0	6.0
BAR ER 5813	5.3	7.0	6.2	STALLION SELECT	5.0	7.0	6.0
CAS-LP23	5.0	7.3	6.2	STALLION SUPREME (PSI-E-1)	5.0	7.0	6.0
EDGE	5.0	7.3	6.2	SUNSHINE (PICK LP 102-92)	4.7	7.3	6.0
NINE-O-ONE	5.0	7.3	6.2	TOP HAT	5.0	7.0	6.0
PASSPORT (PST-2FF)	5.0	7.3	6.2	VIVID	5.0	7.0	6.0
PREMIER II (BAR USA 94-II)	5.0	7.3	6.2	WILLIAMSBURG	5.0	7.0	6.0
PST-2CB	5.0	7.3	6.2	WVPB-PR-C-2	5.0	7.0	6.0
QUICKSTART	5.0	7.3	6.2	ACCENT	5.0	6.7	5.8
ROADRUNNER (PST-2ET)	5.0	7.3	6.2	APR 131	5.0	6.7	5.8
SECRETARIAT (RPBD)	5.0	7.3	6.2	BLAZER III (PICK 928)	4.7	7.0	5.8
WIND DANCE (MB 46)	5.0	7.3	6.2	BUCCANEER II (WVPB 92-4)	5.0	6.7	5.8
WIND STAR (PST-28M)	5.0	7.3	6.2	CATALINA (PST-GH-94)	5.0	6.7	5.8
ACADEMY (PC-93-1)	5.0	7.0	6.0	CHAPARRAL (PST-2DIM)	5.0	6.7	5.8
ACHIEVER	5.0	7.0	6.0	LEGACY II (LESCO-TWF)	5.0	6.7	5.8
ADVANTAGE	5.0	7.0	6.0	MARDIGRAS (ZPS-2NV)	5.0	6.7	5.8
APR 066	5.0	7.0	6.0	PANTHER (ZPS-PR1)	5.0	6.7	5.8
APR 124	5.0	7.0	6.0	PEGASUS	5.0	6.7	5.8
ASSURE	5.0	7.0	6.0	PENNFINE	5.0	6.7	5.8
BLACKHAWK (TMI-EXFLP94)	5.0	7.0	6.0	PS-D-9	5.0	6.7	5.8
CALYPSO II	5.0	7.0	6.0	SR 4010 (SRX 4010)	4.7	7.0	5.8
CITATION III (PST-2DGR)	5.0	7.0	6.0	TOP GUN (J-1703)	5.0	6.7	5.8
CUTTER	5.0	7.0	6.0	WX3-91	5.0	6.7	5.8
DANCER	5.7	6.3	6.0	WX3-93	5.0	6.7	5.8
DERBY SUPREME (ISI-MHB)	5.0	7.0	6.0	ASP400 (APR 106)	5.0	6.3	5.7
ELF	5.0	7.0	6.0	DLP 1305	5.0	6.3	5.7
ESQUIRE	5.0	7.0	6.0	STARDANCE (PST-2FE)	5.0	6.3	5.7
EXPRESS	5.0	7.0	6.0	CADDIESHACK (MED 5071)	5.0	6.0	5.5
HEAD START (PICK PR 84-91)	5.0	7.0	6.0	LINN	5.0	6.0	5.5
IMAGINE	4.7	7.3	6.0	NAVAJO	4.7	6.3	5.5
KOOS 93-6	5.0	7.0	6.0	FIGARO	5.0	5.7	5.3
LAREDO	5.0	7.0	6.0	DSV NA 9401	4.7	5.7	5.2
MANHATTAN 3	5.0	7.0	6.0	DSV NA 9402	5.0	5.3	5.2
MONTEREY (J-1706)	5.0	7.0	6.0				
MORNING STAR	5.0	7.0	6.0	LSO VALUE	0.3	0.7	0.4
MVF-4-1	5.0	7.0	6.0	C.V. (%)	3.7	5.9	5.3
NIGHT HAWK	5.0	7.0	6.0				

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 15. THATCH MEASUREMENTS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 1998 DATA  
 THATCH MEASUREMENTS IN MILLIMETERS 2/

NAME	QE1	NAME	QE1
IMAGINE	6.3	EXCEL (MB 1-5)	2.3
DERBY SUPREME (ISI-MHB)	5.3	NAVAJO	2.3
DANCER	5.0	PEGASUS	2.3
CUTIER	4.7	PRIZM	2.3
MANHATTAN 3	4.7	PST-2CB	2.3
RADIANT (MB 44)	4.7	QUICKSTART	2.3
ROADRUNNER (PST-2ET)	4.7	SR 4200	2.3
ACADEMY (PC-93-1)	4.3	SR 4400 (SRX 4400)	2.3
DLP 1305	4.3	STALLION SELECT	2.3
MONTEREY (J-1706)	4.3	STARDANCE (PST-2FE)	2.3
NINE-O-ONE	4.3	WIND STAR (PST-28M)	2.3
ELF	4.0	WX3-91	2.3
EXPRESS	4.0	WX3-93	2.3
LINN	4.0	ACHIEVER	2.0
OMNI	4.0	ASP400 (APR 106)	2.0
PENNANT II (MB 42)	4.0	ASSURE	2.0
REPELL III (LRF-94-C7)	4.0	BAR ER 5813	2.0
SPELL BOUND (WVPB-93-KFK)	4.0	BLACKHAWK (TMI-EXFLP94)	2.0
TOP GUN (J-1703)	4.0	CAS-LP23	2.0
ASCEND (MB 45)	3.7	DSV NA 9401	2.0
CALYPSO II	3.7	FIGARO	2.0
HEAD START (PICK PR 84-91)	3.7	MVF-4-1	2.0
LINE DRIVE (MB 47)	3.7	OMEGA3 (ZPS-2DR-94)	2.0
BRIGHTSTAR	3.3	PALMER III (LRF-94-MPRH)	2.0
CHAPARRAL (PST-2DLM)	3.3	PASSPORT (PST-2FF)	2.0
MORNING STAR	3.3	PENNFINE	2.0
PANTHER (ZPS-PR1)	3.3	PS-D-9	2.0
PRELUDE III (LRF-94-B6)	3.3	SATURN	2.0
PREMIER II (BAR USA 94-II)	3.3	WIZARD (MB 41)	2.0
R2 (ISI-R2)	3.3	ACCENT	1.7
SONATA (PST-2R3)	3.3	APR 131	1.7
DIVINE	3.0	BRIGHTSTAR II (PST-2M3)	1.7
EDGE	3.0	BUCCANEER II (WVPB 92-4)	1.7
KOOS 93-6	3.0	CITATION III (PST-2DGR)	1.7
LEGACY II (LESCO-TWF)	3.0	PROTOCOL (KOOS 93-3)	1.7
LRF-94-C8	3.0	SATURN II (ZPS-2ST)	1.7
MAJESTY (MB 43)	3.0	STALLION SUPREME (PSI-E-1)	1.7
NOBILITY	3.0	WIND DANCE (MB 46)	1.7
VIVID	3.0	WVPB-PR-C-2	1.7
ADVANTAGE	2.7	PRECISION	1.3
DSV NA 9402	2.7	BLAZER III (PICK 928)	1.0
LAREDO	2.7	CADDIESHACK (MED 5071)	1.0
MARDIGRAS (ZPS-2NV)	2.7	RIVIERA II	1.0
NIGHT HAWK	2.7	SUNSHINE (PICK LP 102-92)	1.0
SECRETARIAT (RPBD)	2.7	WILLIAMSBURG	1.0
SR 4010 (SRX 4010)	2.7	CATALINA (PST-GH-94)	0.7
TOP HAT	2.7		
APR 066	2.3	LSD VALUE	3.3
APR 124	2.3	C.V. (%)	74.0
ESQUIRE	2.3		

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 16. LEAF SPOT RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
LEAF SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	UB2	NAME	UB2
BRIGHTSTAR II (PST-2M3)	7.3	IMAGINE	5.7
CATALINA (PST-GH-94)	7.0	KOOS 93-6	5.7
DERBY SUPREME (ISI-MHB)	7.0	NINE-O-ONE	5.7
SUNSHINE (PICK LP 102-92)	7.0	NOBILITY	5.7
ACCENT	6.7	PALMER III (LRF-94-MPRH)	5.7
BRIGHTSTAR	6.7	PANTHER (ZPS-PR1)	5.7
CADDIESHACK (MED 5071)	6.7	PROTOCOL (KOOS 93-3)	5.7
LAREDO	6.7	QUICKSTART	5.7
MARDIGRAS (ZPS-2NV)	6.7	REPELL III (LRF-94-C7)	5.7
PRIZM	6.7	RIVIERA II	5.7
RADIANT (MB 44)	6.7	ROADRUNNER (PST-2ET)	5.7
WX3-93	6.7	SATURN II (ZPS-2ST)	5.7
ASCEND (MB 45)	6.3	SPELL BOUND (WVPB-93-KFK)	5.7
BLACKHAWK (TMI-EXFLP94)	6.3	SR 4200	5.7
DIVINE	6.3	SR 4400 (SRX 4400)	5.7
MAJESTY (MB 43)	6.3	STALLION SUPREME (PSI-E-1)	5.7
PENNANT II (MB 42)	6.3	STARDANCE (PST-2FE)	5.7
SECRETARIAT (RPBD)	6.3	WILLIAMSBURG	5.7
TOP GUN (J-1703)	6.3	WX3-91	5.7
VIVID	6.3	EXPRESS	5.5
ADVANTAGE	6.0	ACHIEVER	5.3
ASSURE	6.0	APR 066	5.3
BLAZER III (PICK 928)	6.0	BUCCANEER II (WVPB 92-4)	5.3
CALYPSO II	6.0	CAS-LP23	5.3
CHAPARRAL (PST-2DLM)	6.0	CITATION III (PST-2DGR)	5.3
DLP 1305	6.0	EXCEL (MB 1-5)	5.3
ESQUIRE	6.0	LEGACY II (LESCO-TWF)	5.3
LRF-94-C8	6.0	LINE DRIVE (MB 47)	5.3
MANHATTAN 3	6.0	MORNING STAR	5.3
MONTEREY (J-1706)	6.0	NAVAJO	5.3
MVF-4-1	6.0	PRELUDE III (LRF-94-B6)	5.3
OMEGA3 (ZPS-2DR-94)	6.0	SR 4010 (SRX 4010)	5.3
OMNI	6.0	STALLION SELECT	5.3
PASSPORT (PST-2FF)	6.0	WIZARD (MB 41)	5.3
PREMIER II (BAR USA 94-II)	6.0	APR 131	5.0
PS-D-9	6.0	FIGARO	5.0
R2 (ISI-R2)	6.0	NIGHT HAWK	5.0
SONATA (PST-2R3)	6.0	PENNFINE	5.0
TOP HAT	6.0	PRECISION	5.0
WIND DANCE (MB 46)	6.0	WVPB-PR-C-2	5.0
WIND STAR (PST-28M)	6.0	BAR ER 5813	4.7
ACADEMY (PC-93-1)	5.7	DSV NA 9401	4.7
APR 124	5.7	DSV NA 9402	4.7
ASP400 (APR 106)	5.7	SATURN	4.7
CUTTER	5.7	PEGASUS	4.3
DANCER	5.7	PST-2CB	4.3
EDGE	5.7		
ELF	5.7	LSD VALUE	1.0
HEAD START (PICK PR 84-91)	5.7	C.V. (%)	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.

TABLE 17. DOLLAR SPOT (JULY) RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	NJ1	NAME	NJ1
CATALINA (PST-GH-94)	9.0	MONTEREY (J-1706)	8.0
EDGE	9.0	NINE-O-ONE	8.0
LAREDO	9.0	PASSPORT (PST-2FF)	8.0
SUNSHINE (PICK LP 102-92)	9.0	PENNANT II (MB 42)	8.0
ACHIEVER	8.7	PRELUDE III (LRF-94-B6)	8.0
APR 066	8.7	PROTOCOL (KOOS 93-3)	8.0
APR 124	8.7	PST-2CB	8.0
ASP400 (APR 106)	8.7	QUICKSTART	8.0
CADDIESHACK (MED 5071)	8.7	REPELL III (LRF-94-C7)	8.0
CHAPARRAL (PST-2DLM)	8.7	RIVIERA II	8.0
CUTTER	8.7	ROADRUNNER (PST-2ET)	8.0
DERBY SUPREME (ISI-MHB)	8.7	SECRETARIAT (RPBD)	8.0
ESQUIRE	8.7	SR 4400 (SRX 4400)	8.0
EXPRESS	8.7	STALLION SUPREME (PSI-E-1)	8.0
KOOS 93-6	8.7	WIND DANCE (MB 46)	8.0
LEGACY II (LESCO-TWF)	8.7	APR 131	7.7
MANHATTAN 3	8.7	ASCEND (MB 45)	7.7
PANTHER (ZPS-PR1)	8.7	DLP 1305	7.7
PENNFINE	8.7	HEAD START (PICK PR 84-91)	7.7
R2 (ISI-R2)	8.7	LINN	7.7
SR 4200	8.7	MAJESTY (MB 43)	7.7
WX3-91	8.7	MARDIGRAS (ZPS-2NV)	7.7
BLACKHAWK (TMI-EXFLP94)	8.3	NOBILITY	7.7
BRIGHTSTAR II (PST-2M3)	8.3	RADIANT (MB 44)	7.7
CALYPSO II	8.3	SATURN II (ZPS-2ST)	7.7
CITATION III (PST-2DGR)	8.3	SPELL BOUND (WVPB-93-KFK)	7.7
DIVINE	8.3	WVPB-PR-C-2	7.7
MORNING STAR	8.3	ASSURE	7.3
MVF-4-1	8.3	BRIGHTSTAR	7.3
OMEGA3 (ZPS-2DR-94)	8.3	IMAGINE	7.3
OMNI	8.3	LINE DRIVE (MB 47)	7.3
PALMER III (LRF-94-MPRH)	8.3	TOP HAT	7.3
PRECISION	8.3	WX3-93	7.3
PREMIER II (BAR USA 94-II)	8.3	CAS-LP23	7.0
PRIZM	8.3	DSV NA 9401	7.0
PS-D-9	8.3	WILLIAMSBURG	7.0
SONATA (PST-2R3)	8.3	BAR ER 5813	6.7
SR 4010 (SRX 4010)	8.3	DSV NA 9402	6.7
STALLION SELECT	8.3	EXCEL (MB 1-5)	6.7
STARDANCE (PST-2FE)	8.3	NAVAJO	6.7
TOP GUN (J-1703)	8.3	NIGHT HAWK	6.3
VIVID	8.3	SATURN	6.3
WIND STAR (PST-28M)	8.3	DANCER	6.0
WIZARD (MB 41)	8.3	PEGASUS	6.0
ACADEMY (PC-93-1)	8.0	ELF	5.0
ACCENT	8.0	FIGARO	5.0
ADVANTAGE	8.0		
BLAZER III (PICK 928)	8.0	LSV VALUE	1.4
BUCCANEER II (WVPB 92-4)	8.0	C.V. (%)	11.2
LRF-94-C8	8.0		

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 18. RED THREAD RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA  
RED THREAD RATINGS 1-9; 9=NO DISEASE 2/

NAME	VA1	NAME	VA1
MORNING STAR	7.7	ASP400 (APR 106)	6.3
STALLION SELECT	7.7	BAR ER 5813	6.3
ACHIEVER	7.3	BRIGHTSTAR	6.3
BLAZER III (PICK 928)	7.3	BUCCANEER II (WVPB 92-4)	6.3
BRIGHTSTAR II (PST-2M3)	7.3	CUTTER	6.3
CAS-LP23	7.3	DANCER	6.3
DSV NA 9402	7.3	DERBY SUPREME (ISI-MHB)	6.3
NINE-O-ONE	7.3	FIGARO	6.3
SATURN	7.3	LRF-94-C8	6.3
SR 4200	7.3	NAVAJO	6.3
SR 4400 (SRX 4400)	7.3	NOBILITY	6.3
STALLION SUPREME (PSI-E-1)	7.3	PRELUDE III (LRF-94-B6)	6.3
ACCENT	7.0	ROADRUNNER (PST-2ET)	6.3
CADDIESHACK (MED 5071)	7.0	VIVID	6.3
CATALINA (PST-GH-94)	7.0	WX3-91	6.3
CHAPARRAL (PST-2DLM)	7.0	APR 066	6.0
DIVINE	7.0	APR 131	6.0
DSV NA 9401	7.0	ASSURE	6.0
LEGACY II (LESCO-TWF)	7.0	IMAGINE	6.0
MANHATTAN 3	7.0	KOOS 93-6	6.0
NIGHT HAWK	7.0	LINN	6.0
PAIMER III (LRF-94-MPRH)	7.0	MAJESTY (MB 43)	6.0
PASSPORT (PST-2FF)	7.0	OMEGA3 (ZPS-2DR-94)	6.0
PEGASUS	7.0	OMNI	6.0
PENNANT II (MB 42)	7.0	PRECISION	6.0
PENNFINE	7.0	PROTOCOL (KOOS 93-3)	6.0
PS-D-9	7.0	SATURN II (ZPS-2ST)	6.0
PST-2CB	7.0	SECRETARIAT (RPBD)	6.0
RADIANT (MB 44)	7.0	SPELL BOUND (WVPB-93-KFK)	6.0
REPELL III (LRF-94-C7)	7.0	WX3-93	6.0
SR 4010 (SRX 4010)	7.0	ACADEMY (PC-93-1)	5.7
TOP GUN (J-1703)	7.0	CALYPSO II	5.7
TOP HAT	7.0	EDGE	5.7
WVEB-PR-C-2	7.0	ELF	5.7
APR 124	6.7	LINE DRIVE (MB 47)	5.7
BLACKHAWK (TMI-EXFLP94)	6.7	R2 (ISI-R2)	5.7
CITATION III (PST-2DGR)	6.7	WIZARD (MB 41)	5.7
DLP 1305	6.7	ADVANTAGE	5.3
EXRESS	6.7	ASCEND (MB 45)	5.3
HEAD START (PICK PR 84-91)	6.7	EXCEL (MB 1-5)	5.3
MARDIGRAS (ZPS-2NV)	6.7	LAREDO	5.3
MVE-4-1	6.7	MONTEREY (J-1706)	5.3
PANTHER (ZPS-PR1)	6.7	STARDANCE (PST-2FE)	5.3
PREMIER II (BAR USA 94-II)	6.7	WIND DANCE (MB 46)	5.3
QUICKSTART	6.7	ESQUIRE	4.7
RIVIERA II	6.7	PRIZM	4.7
SONATA (PST-2R3)	6.7		
SUNSHINE (PICK LP 102-92)	6.7	LSD VALUE	1.9
WILLIAMSBURG	6.7	C.V. (%)	17.9
WIND STAR (PST-28M)	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.



TABLE 19.

 BROWN PATCH RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 1998 DATA  
 BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/

NAME	NE1	OK1	VA1	MEAN	NAME	NE1	OK1	VA1	MEAN
SR 4400 (SRX 4400)	7.3	7.3	6.0	6.9	LRF-94-C8	7.3	4.7	4.7	5.6
ACCENT	8.0	7.3	5.0	6.8	MVF-4-1	7.3	5.7	3.7	5.6
BAR ER 5813	8.0	7.0	5.0	6.7	PENNFINE	6.0	6.7	4.0	5.6
SR 4200	7.7	7.0	5.3	6.7	STALLION SUPREME (PSI-E-1)	6.0	5.7	5.0	5.6
SECRETARIAT (RPBD)	7.0	6.7	5.7	6.4	WIND STAR (PST-28M)	7.0	6.0	3.7	5.6
CUTTER	8.0	6.3	5.0	6.4	WVPB-PR-C-2	7.7	4.7	4.3	5.6
CADDIESHACK (MED 5071)	8.3	6.7	4.0	6.3	BRIGHTSTAR II (PST-2M3)	7.3	6.0	3.3	5.6
CALYPSO II	7.3	7.7	3.7	6.2	KOOS 93-6	7.3	5.0	4.3	5.6
DIVINE	7.7	7.3	3.7	6.2	MANHATTAN 3	7.3	6.0	3.3	5.6
MORNING STAR	6.7	5.7	6.3	6.2	PEGASUS	5.3	7.0	4.3	5.6
PRELUDE III (LRF-94-B6)	8.0	5.7	5.0	6.2	ROADRUNNER (PST-2ET)	7.3	6.0	3.3	5.6
R2 (ISI-R2)	8.3	6.0	4.3	6.2	SATURN II (ZPS-2ST)	8.0	4.3	4.3	5.6
ACHIEVER	7.0	6.3	5.3	6.2	EDGE	5.7	5.0	5.7	5.4
TOP HAT	7.7	5.7	5.0	6.1	NAVAJO	6.0	5.7	4.7	5.4
ELF	9.0	6.0	3.3	6.1	NIGHT HAWK	5.7	6.0	4.7	5.4
LAREDO	7.3	6.7	4.3	6.1	STALLION SELECT	5.3	5.7	5.3	5.4
SPELL BOUND (WVPB-93-KFK)	7.7	6.3	4.3	6.1	STARDANCE (PST-2FE)	8.0	4.3	4.0	5.4
VIVID	8.7	5.0	4.7	6.1	WIZARD (MB 41)	6.7	5.3	4.3	5.4
WILLIAMSBURG	7.3	6.3	4.7	6.1	WX3-91	7.0	5.0	4.3	5.4
ASP400 (APR 106)	8.3	6.0	3.7	6.0	APR 124	7.3	5.7	3.0	5.3
DERBY SUPREME (ISI-MHB)	8.0	6.0	4.0	6.0	PREMIER II (BAR USA 94-II)	7.0	5.0	4.0	5.3
EXPRESS	7.3	6.0	4.7	6.0	SATURN	6.7	5.7	3.7	5.3
PASSPORT (PST-2FF)	8.3	4.7	5.0	6.0	ASCEND (MB 45)	7.0	5.0	3.7	5.2
PST-2CB	7.3	5.3	5.3	6.0	BRIGHTSTAR	5.7	5.7	4.3	5.2
RIVIERA II	7.7	5.0	5.3	6.0	LEGACY II (LESCO-TWF)	6.0	5.0	4.7	5.2
ASSURE	7.3	5.7	4.7	5.9	OMEGA3 (ZPS-2DR-94)	7.3	4.7	3.7	5.2
ESQUIRE	8.0	5.7	4.0	5.9	ACADEMY (PC-93-1)	6.3	5.0	4.3	5.2
NOBILITY	7.7	6.3	3.7	5.9	ADVANTAGE	7.3	4.7	3.3	5.1
PALMER III (LRF-94-MPRH)	6.7	5.7	5.3	5.9	CAS-LP23	6.0	5.7	3.7	5.1
PANTHER (ZPS-PR1)	7.7	6.0	4.0	5.9	WX3-93	6.7	5.0	3.7	5.1
PRIZM	7.7	6.0	4.0	5.9	PROTOCOL (KOOS 93-3)	5.3	5.3	4.7	5.1
SR 4010 (SRX 4010)	7.7	6.0	4.0	5.9	OMNI	6.0	5.7	3.3	5.0
BUCCANEER II (WVPB 92-4)	6.7	5.7	5.0	5.8	CHAPARRAL (PST-2DLM)	6.3	5.3	3.3	5.0
CITATION III (PST-2DGR)	8.3	6.3	2.7	5.8	MAJESTY (MB 43)	7.3	4.3	3.3	5.0
DLP 1305	7.7	5.7	4.0	5.8	PRECISION	6.3	4.7	4.0	5.0
LINE DRIVE (MB 47)	7.7	5.7	4.0	5.8	PENNANT II (MB 42)	6.7	5.0	3.0	4.9
MONTEFEY (J-1706)	6.7	6.0	4.7	5.8	BLAZER III (PICK 928)	7.0	3.7	4.0	4.9
TOP GUN (J-1703)	6.7	6.0	4.7	5.8	NINE-O-ONE	6.7	4.0	3.7	4.8
APR 066	5.3	6.7	5.3	5.8	EXCEL (MB 1-5)	6.7	4.3	3.0	4.7
BLACKHAWK (TMI-EXFLP94)	6.7	6.3	4.3	5.8	WIND DANCE (MB 46)	6.0	5.0	3.0	4.7
CATALINA (PST-GH-94)	7.3	6.3	3.7	5.8	FIGARO	3.3	6.3	3.7	4.4
PS-D-9	7.0	6.0	4.3	5.8	RADIANT (MB 44)	5.7	4.3	3.0	4.3
SUNSHINE (PICK LP 102-92)	7.3	5.3	4.7	5.8	DANCER	4.0	5.0	3.7	4.2
APR 131	6.3	6.3	4.3	5.7	DSV NA 9402	4.0	4.7	2.7	3.8
IMAGINE	7.3	5.7	4.0	5.7	DSV NA 9401	3.0	4.7	2.7	3.4
MARDIGRAS (ZPS-2NV)	8.3	4.7	4.0	5.7	LINN	4.3	3.0	3.0	3.4
QUICKSTART	7.0	5.3	4.7	5.7					
REPELL III (LRF-94-C7)	8.0	4.7	4.3	5.7	LSD VALUE	2.2	2.2	1.8	1.2
SONATA (PST-2R3)	7.0	6.0	4.0	5.7	C.V. (%)	20.0	24.5	26.9	23.3
HEAD START (PICK PR 84-91)	8.0	4.7	4.0	5.6					

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

TABLE 20. PYTHIUM BLIGHT RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 1998 DATA  
 PYTHIUM BLIGHT RATINGS 1-9; 9=NO DISEASE 2/

NAME	IL2	NAME	IL2
AER 066	5.7	ASSURE	2.0
APR 124	5.0	BRIGHTSTAR	2.0
LAREDO	5.0	CAS-LP23	2.0
ACHIEVER	4.7	CUTTER	2.0
AER 131	4.7	HEAD START (PICK PR 84-91)	2.0
CHAPARRAL (PST-2DLM)	4.7	IMAGINE	2.0
MANHATTAN 3	4.3	MORNING STAR	2.0
SONATA (PST-2R3)	4.3	MVF-4-1	2.0
MARDIGRAS (ZPS-2NV)	4.0	NAVAJO	2.0
RADIANT (MB 44)	4.0	NINE-O-ONE	2.0
SATURN II (ZPS-2ST)	4.0	PANTHER (ZPS-PR1)	2.0
ACADEMY (PC-93-1)	3.7	PRELUDE III (LRF-94-B6)	2.0
BAR ER 5813	3.7	PROTOCOL (KOOS 93-3)	2.0
CADDIESHACK (MED 5071)	3.7	PS-D-9	2.0
CALYPSO II	3.7	RIVIERA II	2.0
MONTEREY (J-1706)	3.7	ROADRUNNER (PST-2ET)	2.0
PASSPORT (PST-2FF)	3.7	SECRETARIAT (RPBD)	2.0
ASP400 (APR 106)	3.3	SPELL BOUND (WVPB-93-KFK)	2.0
CITATION III (PST-2DGR)	3.3	SR 4200	2.0
EDGE	3.3	STALLION SELECT	2.0
LEGACY II (LESCO-TWF)	3.3	STARDANCE (PST-2FE)	2.0
PALMER III (LRF-94-MPRH)	3.3	WIZARD (MB 41)	2.0
PRECISION	3.3	WVPB-PR-C-2	2.0
SR 4010 (SRX 4010)	3.3	DSV NA 9402	1.7
TOP GUN (J-1703)	3.3	KOOS 93-6	1.7
DERBY SUPREME (ISI-MHB)	3.0	OMEGA3 (ZPS-2DR-94)	1.7
DIVINE	3.0	PST-2CB	1.7
STALLION SUPREME (PSI-E-1)	3.0	R2 (ISI-R2)	1.7
BUCCANEER II (WVPB 92-4)	2.7	WX3-91	1.7
CATALINA (PST-GH-94)	2.7	BLAZER III (PICK 928)	1.3
ESQUIRE	2.7	BRIGHTSTAR II (PST-2M3)	1.3
LRF-94-C8	2.7	DANCER	1.3
MAJESTY (MB 43)	2.7	DLP 1305	1.3
PRIZM	2.7	DSV NA 9401	1.3
QUICKSTART	2.7	OMNI	1.3
SUNSHINE (PICK LP 102-92)	2.7	PEGASUS	1.3
VIVID	2.7	PREMIER II (BAR USA 94-II)	1.3
WILLIAMSBURG	2.7	SR 4400 (SRX 4400)	1.3
WIND DANCE (MB 46)	2.7	WX3-93	1.3
WIND STAR (PST-28M)	2.7	ELF	1.0
ACCENT	2.3	EXCEL (MB 1-5)	1.0
ADVANTAGE	2.3	FIGARO	1.0
BLACKHAWK (TMI-EXFLP94)	2.3	LINN	1.0
EXPRESS	2.3	NIGHT HAWK	1.0
LINE DRIVE (MB 47)	2.3	PENNFINE	1.0
NOBILITY	2.3	SATURN	1.0
PENNANT II (MB 42)	2.3		
REPELL III (LRF-94-C7)	2.3	LSD VALUE	2.1
TOP HAT	2.3	C.V. (%)	52.6
ASCEND (MB 45)	2.0		

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 21. PERCENT BROWN PATCH / DOLLAR SPOT RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA 2/

NAME	KY1	NAME	KY1
LINN	53.3	R2 (ISI-R2)	9.0
CHAPARRAL (EST-2DLM)	21.3	SATURN II (ZPS-2ST)	9.0
DLP 1305	20.0	RADIANT (MB 44)	8.7
BRIGHTSTAR	17.7	STALLION SUPREME (PSI-E-1)	8.7
FIGARO	17.7	CAS-LP23	8.3
WX3-93	16.7	LRF-94-C8	8.3
WX3-91	14.7	SR 4010 (SRX 4010)	8.3
BAR ER 5813	13.3	ACADEMY (PC-93-1)	8.0
IMAGINE	13.3	APR 131	8.0
MANHATTAN 3	13.3	DSV NA 9402	8.0
PEGASUS	13.3	HEAD START (PICK PR 84-91)	8.0
CATALINA (PST-GH-94)	13.0	OMNI	8.0
NAVAJO	13.0	SPELL BOUND (WVPB-93-KFK)	8.0
VIVID	13.0	APR 066	7.7
CADDIESHACK (MED 5071)	12.7	PRECISION	7.7
LEGACY II (LESCO-TWF)	12.7	NOBILITY	7.3
PALMER III (LRF-94-MPRH)	12.7	PENNFINE	7.3
STALLION SELECT	12.7	SONATA (PST-2R3)	7.3
WVPB-PR-C-2	12.7	SR 4400 (SRX 4400)	7.3
BLAZER III (PICK 928)	12.3	DIVINE	7.0
DSV NA 9401	12.3	NINE-O-ONE	7.0
DERBY SUPREME (ISI-MHB)	12.0	WIND STAR (PST-28M)	6.7
SATURN	12.0	EXPRESS	6.3
ASP400 (APR 106)	11.7	PS-D-9	6.3
CITATION III (PST-2DGR)	11.7	MARDIGRAS (ZPS-2NV)	6.0
ELF	11.7	PRIZM	6.0
EXCEL (MB 1-5)	11.7	RIVIERA II	6.0
MVF-4-1	11.7	PST-2CB	5.7
DANCER	11.3	TOP HAT	5.7
STARDANCE (PST-2FE)	11.3	WILLIAMSBURG	5.3
ESQUIRE	11.0	PASSPORT (EST-2FF)	5.0
LAREDO	11.0	PROTOCOL (KOOS 93-3)	5.0
SUNSHINE (PICK LP 102-92)	11.0	BUCCANEER II (WVPB 92-4)	4.7
APR 124	10.7	PENNANT II (MB 42)	4.7
BRIGHTSTAR II (PST-2M3)	10.7	BLACKHAWK (TMI-EXFLP94)	4.3
KOOS 93-6	10.7	EDGE	4.0
MAJESTY (MB 43)	10.7	MONTEREY (J-1706)	4.0
NIGHT HAWK	10.3	MORNING STAR	3.7
ADVANTAGE	10.0	WIND DANCE (MB 46)	3.7
PREMIER II (BAR USA 94-II)	10.0	ASSURE	3.3
OMEGA3 (ZPS-2DR-94)	9.7	PANTHER (ZES-PR1)	3.3
QUICKSTART	9.3	TOP GUN (J-1703)	3.3
ROADRUNNER (PST-2ET)	9.3	WIZARD (MB 41)	3.3
SECRETARIAT (RPBD)	9.3	REPELL III (LRF-94-C7)	2.3
SR 4200	9.3	ACHIEVER	1.3
ACCENT	9.0	PRELUDE III (LRF-94-B6)	1.3
ASCEND (MB 45)	9.0		
CALYPSO II	9.0	LSD VALUE	8.3
CUTTER	9.0	C.V. (%)	53.4
LINE DRIVE (MB 47)	9.0		

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

TABLE 22. PERCENT PATCH DISEASE RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
1998 DATA 2/

NAME	KY1	NAME	KY1
LINN	85.0	CALYPSO II	10.0
DLP 1305	78.3	PANTHER (ZPS-PR1)	10.0
PENNFINE	63.3	R2 (ISI-R2)	10.0
FIGARO	53.3	PROTOCOL (KOOS 93-3)	9.7
DSV NA 9402	50.7	OMNI	9.3
DSV NA 9401	50.0	PREMIER II (BAR USA 94-II)	9.3
WVPB-PR-C-2	46.7	SATURN II (ZPS-2ST)	9.3
SATURN	37.0	WILLIAMSBURG	9.3
STARDANCE (PST-2FE)	36.7	WIND DANCE (MB 46)	9.3
DANCER	34.7	QUICKSTART	9.0
ELF	33.3	WIZARD (MB 41)	9.0
WX3-91	30.0	ACCENT	8.7
NIGHT HAWK	29.3	ASSURE	8.7
WX3-93	29.3	SPELL BOUND (WVPB-93-KFK)	8.7
PEGASUS	29.0	CADDIESHACK (MED 5071)	8.3
EXCEL (MB 1-5)	28.7	ESQUIRE	8.3
WIND STAR (PST-28M)	27.3	MANHATTAN 3	8.3
ROADRUNNER (PST-2ET)	27.0	ASCEND (MB 45)	8.0
BRIGHTSTAR	25.7	ACHIEVER	7.7
ADVANTAGE	24.0	LINE DRIVE (MB 47)	7.7
BAR ER 5813	23.0	PRECISION	7.7
BIAZER III (PICK 928)	21.7	SUNSHINE (PICK LP 102-92)	7.7
BRIGHTSTAR II (PST-2M3)	21.7	APR 131	7.3
CITATION III (PST-2DGR)	21.3	CUTTER	7.3
VIVID	19.3	REPELL III (LRF-94-C7)	7.3
LEGACY II (LESCO-TWF)	19.0	SR 4010 (SRX 4010)	7.3
NAVAJO	19.0	EXPRESS	6.7
NINE-O-ONE	18.3	PRIZM	6.7
CATALINA (PST-GH-94)	18.0	PST-2CB	6.7
MVF-4-1	18.0	SECRETARIAT (RPBD)	6.7
RADIANT (MB 44)	15.7	TOP HAT	6.3
STALLION SELECT	15.7	BLACKHAWK (TMI-EXFLP94)	5.7
CHAPARRAL (PST-2DLM)	15.3	EDGE	5.3
APR 066	15.0	LAREDO	5.3
ACADEMY (PC-93-1)	14.3	APR 124	5.0
CAS-LP23	14.3	LRF-94-C8	4.7
MONTEREY (J-1706)	13.7	NOBILITY	4.3
TOP GUN (J-1703)	13.3	RIVIERA II	4.3
DERBY SUPREME (ISI-MHB)	13.0	SR 4400 (SRX 4400)	4.0
MARDIGRAS (ZPS-2NV)	13.0	PASSPORT (PST-2FF)	3.7
PALMER III (LRF-94-MPRH)	12.3	PRELUDE III (LRF-94-B6)	3.3
SONATA (PST-2R3)	12.3	BUCCANEER II (WVPB 92-4)	3.0
SR 4200	12.0	DIVINE	3.0
KOOS 93-6	11.7	MORNING STAR	2.7
ASP400 (APR 106)	11.3	PENNANT II (MB 42)	2.0
IMAGINE	11.3	PS-D-9	1.7
OMEGA3 (ZPS-2DR-94)	11.3		
HEAD START (PICK PR 84-91)	11.0	LSD VALUE	16.8
MAJESTY (MB 43)	10.7	C.V. (%)	63.0
STALLION SUPREME (PSI-E-1)	10.3		

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TABLE 23.

BROWN PATCH RATINGS OF PERENNIAL RYEGRASS CULTIVARS 1/  
 AT FAYETTEVILLE, AR  
 1998 DATA  
 BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/

NAME	JULY	SEPTEMBER	MEAN	NAME	JULY	SEPTEMBER	MEAN
PENNANT II (MB 42)	8.7	6.0	7.3	SATURN	7.7	4.3	6.0
PST-2CB	8.7	5.3	7.0	SECRETARIAT (RPBD)	8.3	3.7	6.0
R2 (ISI-R2)	8.7	5.3	7.0	SUNSHINE (PICK LP 102-92)	8.3	3.7	6.0
WILLIAMSEURG	8.3	5.7	7.0	VIVID	7.3	4.7	6.0
OMNI	8.7	5.0	6.8	WX3-93	8.0	4.0	6.0
PALMER III (LRF-94-MPRH)	9.0	4.7	6.8	ACCENT	7.0	4.7	5.8
PENNFINE	8.7	5.0	6.8	APR 124	7.7	4.0	5.8
SR 4010 (SRX 4010)	8.7	5.0	6.8	BLAZER III (PICK 928)	8.0	3.7	5.8
APR 131	8.3	5.0	6.7	BRIGHTSTAR II (PST-2M3)	7.0	4.7	5.8
ASSURE	9.0	4.3	6.7	CITATION III (PST-2DGR)	7.0	4.7	5.8
BLACKHAWK (TMI-EXFLP94)	8.7	4.7	6.7	ESQUIRE	6.3	5.3	5.8
LINN	8.3	5.0	6.7	FIGARO	7.7	4.0	5.8
MONTEREY (J-1706)	8.3	5.0	6.7	APR 066	7.0	4.3	5.7
PEGASUS	8.7	4.7	6.7	CADDIESHACK (MED 5071)	6.3	5.0	5.7
RIVIERA II	8.7	4.7	6.7	MARDIGRAS (ZPS-2NV)	7.3	4.0	5.7
BUCCANEER II (WVPB 92-4)	8.0	5.0	6.5	MORNING STAR	7.7	3.7	5.7
DLP 1305	7.7	5.3	6.5	PASSPORT (PST-2FF)	7.3	4.0	5.7
LAREDO	7.7	5.3	6.5	RADIANT (MB 44)	6.3	5.0	5.7
WIZARD (MB 41)	8.3	4.7	6.5	TOP GUN (J-1703)	7.3	4.0	5.7
EXPRESS	8.7	4.0	6.3	WIND DANCE (MB 46)	7.3	4.0	5.7
MAJESTY (MB 43)	7.3	5.3	6.3	ACADEMY (PC-93-1)	7.7	3.3	5.5
NINE-O-ONE	8.3	4.3	6.3	DANCER	6.3	4.7	5.5
PRECISION	7.7	5.0	6.3	DSV NA 9402	6.3	4.7	5.5
PREMIER II (BAR USA 94-II)	8.3	4.3	6.3	EDGE	8.0	3.0	5.5
STARDANCE (PST-2FE)	8.0	4.7	6.3	QUICKSTART	7.0	4.0	5.5
WX3-91	8.0	4.7	6.3	SATURN II (ZPS-2ST)	8.0	3.0	5.5
CAS-LP23	8.0	4.3	6.2	WIND STAR (PST-28M)	6.7	4.3	5.5
CHAPARRAL (PST-2DLM)	8.3	4.0	6.2	WVPB-PR-C-2	8.0	3.0	5.5
DERBY SUPREME (ISI-MHB)	8.7	3.7	6.2	ADVANTAGE	7.3	3.3	5.3
EXCEL (MB 1-5)	7.0	5.3	6.2	IMAGINE	6.0	4.7	5.3
LEGACY II (LESCO-TWF)	8.3	4.0	6.2	REPELL III (LRF-94-C7)	7.7	3.0	5.3
LRF-94-C8	8.3	4.0	6.2	ROADRUNNER (PST-2ET)	6.7	4.0	5.3
MVF-4-1	7.7	4.7	6.2	SR 4400 (SRX 4400)	7.3	3.3	5.3
NOBILITY	8.0	4.3	6.2	STALLION SELECT	7.3	3.3	5.3
PROTOCOL (KOOS 93-3)	7.7	4.7	6.2	BAR ER 5813	7.0	3.3	5.2
SR 4200	8.0	4.3	6.2	LINE DRIVE (MB 47)	6.0	4.3	5.2
STALLION SUPREME (PSI-E-1)	7.7	4.7	6.2	MANHATTAN 3	6.0	4.0	5.0
TOP HAT	8.3	4.0	6.2	OMEGA3 (ZPS-2DR-94)	6.7	3.3	5.0
ACHIEVER	7.0	5.0	6.0	SPELL BOUND (WVPB-93-KFK)	6.3	3.7	5.0
ASCEND (MB 45)	8.3	3.7	6.0	PRELUDE III (LRF-94-B6)	7.0	2.7	4.8
ASP400 (APR 106)	7.3	4.7	6.0	BRIGHTSTAR	7.0	2.3	4.7
CATALINA (PST-GH-94)	8.3	3.7	6.0	PANTHER (ZPS-PR1)	6.0	3.3	4.7
DIVINE	7.3	4.7	6.0	CALYPSO II	5.3	3.7	4.5
DSV NA 9401	7.0	5.0	6.0	CUTTER	5.0	4.0	4.5
ELF	7.7	4.3	6.0	NIGHT HAWK	5.7	2.7	4.2
HEAD START (PICK PR 84-91)	8.0	4.0	6.0	SONATA (PST-2R3)	5.7	2.7	4.2
KOOS 93-6	8.0	4.0	6.0				
NAVAJO	7.0	5.0	6.0	LSD VALUE	5.5	4.8	4.7
PRIZM	7.7	4.3	6.0	C.V. (%)	19.6	29.5	19.1
PS-D-9	8.3	3.7	6.0				

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

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