

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, a national director, and an executive coordinator. The program will 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. The national director is responsible for the overall coordination and operation of the NTEP, including (1) soliciting entries and distribution of test seed sets to evaluators, (2) data summarization and distribution, and, (3) management of test materials, facilities, and finances.

National Director - Kevin N. Morris, National Turfgrass Federation, Inc.
Executive Coordinator, NTEP Policy Committee - J. Jack Murray

CURRENT POLICY COMMITTEE MEMBERS:

Dr. Donald B. White, University of Minnesota
Dr. Milton C. Engelke, Texas A & M University
Dr. Terrance P. Riordan, University of Nebraska
Dr. William A. Meyer, Pure-Seed Testing, Inc.
Dr. Bridget Ruummele, University of Rhode Island
Mr. Al Gardner, A-G Turf Farms, Inc.

FOR ADDITIONAL REPORTS OR INFORMATION WRITE:

Kevin Morris, National Director
National Turfgrass Evaluation Program
Beltsville Agricultural Research Center-West
Building 001, Room 333
Beltsville, Maryland 20705

CONTENTS

1987 National Tall Fescue Test - 1988-91 data

LOCATIONS SUBMITTING DATA FOR 1988-91.....1

NATIONAL TALL FESCUE TEST, 1987 - Entries and Sponsors.....2

Table A - 1988-91 Locations, Site Descriptions and Management
Practices in the 1987 National Tall Fescue Test.....3

Table B - Locations and Data Collected in 1988-91.....4

Table 1 - Mean Turfgrass Quality Ratings of Tall Fescue
Cultivars at Forty-Two Locations in the United
States.....7

Table 2 - Mean Turfgrass Quality Ratings of Tall Fescue
Cultivars for Each Month Grown at Forty-Two
Locations in the United States.....11

Table 3 - Ranking of Mean Turfgrass Quality Ratings of Tall
Fescue Cultivars at Forty-Two Locations in the
United States.....13

Table 4 - Mean Turfgrass Quality Ratings of Tall Fescue
Cultivars For Each Year Grown in the United States.....17

Table 5 - Spring Greenup Ratings of Tall Fescue Cultivars.....19

Table 6 - Genetic Color Ratings of Tall Fescue Cultivars.....20

Table 7 - Leaf Texture Ratings of Tall Fescue Cultivars.....22

Table 8 - Seedling Vigor Ratings of Tall Fescue Cultivars.....24

Table 9 - Fall Color Ratings of Tall Fescue Cultivars.....26

Table 10 - Winter Color Ratings of Tall Fescue Cultivars.....27

Table 11 - Spring Density Ratings of Tall Fescue Cultivars.....28

Table 12 - Summer Density Ratings of Tall Fescue Cultivars.....30

Table 13 - Fall Density Ratings of Tall Fescue Cultivars.....31

Table 14 - Percent Living Ground Cover (Spring) Ratings of
Tall Fescue Cultivars.....33

Table 15 - Percent Living Ground Cover (Summer) Ratings of
Tall Fescue Cultivars.....35

Table 16 - Percent Living Ground Cover (Fall) Ratings of
Tall Fescue Cultivars.....37

Table 17 - Frost Tolerance Ratings of Tall Fescue Cultivars.....38

Table 18 - Drought Tolerance (Recovery) Ratings of Tall Fescue
Cultivars.....39

Table 19 - Fusarium Patch Ratings of Tall Fescue Cultivars.....40

Table 20 - Leaf Spot Ratings of Tall Fescue Cultivars.....41

CONTENTS (continued)

Table 21 - Dollar Spot Ratings of Tall Fescue Cultivars.....42
Table 22 - Brown Patch Ratings of Tall Fescue Cultivars.....43
Table 23 - Pythium Blight Ratings of Tall Fescue Cultivars.....45
Table 24 - Chinch Bug Ratings of Tall Fescue Cultivars.....46
Table 25 - Aphid Ratings of Tall Fescue Cultivars.....47
Table 26 - Vertical Growth Ratings of Tall Fescue Cultivars.....48

LOCATIONS SUBMITTING DATA FOR 1988-91

<u>State</u>	<u>Location</u>	<u>Code</u>
Arkansas	Fayetteville	AR1
Arizona	Tucson	AZ1
California	Santa Clara	CA1
California	Santa Ana	CA2
California	Riverside	CA3
District of Columbia	National Mall	DC2
Georgia	Griffin	GA1
Idaho	Post Falls	ID2
Illinois	Urbana	IL1
Illinois	Carbondale	IL2
Indiana	West Lafayette (high maintenance)	IN1
Indiana	West Lafayette (low maintenance)	IN2
Iowa	Ames	IA1
Kansas	Manhattan	KS1
Kansas	Wichita	KS2
Maryland	Beltsville (high maintenance)	UB1
Maryland	Beltsville (low maintenance)	UB2
Maryland	Silver Spring	MD1
Michigan	East Lansing	MI1
Missouri	Columbia	MO1
Missouri	St. Louis	MO3
Nebraska	Lincoln	NE1
New Jersey	North Brunswick	NJ1
New Jersey	Adelphia	NJ2
New Jersey	Martinsville	NJ3
New York	Ithaca (low mowing)	NY1
New York	Ithaca (high mowing)	NY2
Ohio	Marysville	OH2
Oklahoma	Stillwater	OK1
Oregon	Hubbard	OR1
Oregon	Corvallis	OR2
Rhode Island	Kingston	RI1
Texas	Dallas (high mowing)	TX1
Texas	Dallas (low mowing)	TX2
Virginia	Blacksburg	VA1
Virginia	Blackstone	VA2
Virginia	Richmond	VA3
Virginia	Virginia Beach	VA4
Virginia	Norton	VA6
Washington	Ritzville	WA4
Washington	Mukilteo	WA5
Washington	Yakima	WA6

1987 NATIONAL TALL FESCUE TEST

Entries and Sponsors

Entry No.	Name	Sponsor	Entry No.	Name	Sponsor
1	Adventure	Davenport Seed Company	36	PST-5AP	Turf-Seed, Inc.
2	Barnone (BAR Fa 7851)	Barenbrug Holland	37	Amigo (PST-5HF)	Medalist America
3	Trident	Seed Research of Oregon	38	Jaguar	Zajac Performance Seeds
4	Titan	Seed Research of Oregon	39	Tradition (PST-DBC)	Pennington Seed, Inc.
5	Shortstop (Pick DDF)	Pickseed West, Inc.	40	Olympic	Turf-Seed, Inc.
6	Cochise (Pick 127)	Ampac Seed Co.	41	Jaguar II	Zajac Performance Seeds
7	Guardian (Pick 84SPN)	Roberts Seed Co.	42	Monarch	Turf-Seed, Inc.
8	Emperor (Pick SLD)	Zajac Performance Seeds	43	Apache	Turf-Seed, Inc.
9	PE-7	Reed Funk - Rutgers	44	Arriba (PST-5DM)	Medalist America
10	Shenandoah (PE-7E)	Willamette Seed Co.	45	Avanti (Pick DM)	Pickseed West, Inc.
11	Hubbard 87	Hubbard Seed & Supply	46	Vegas (Normarc 99)	Normarc Seed Company
12	Aquara (Syn Ga)	O. M. Scott & Sons	47	Pacer	International Seeds, Inc.
13	Brahma (Legend)	Agway	48	Carefree	International Seeds, Inc.
14	Taurus	Turf Merchants, Inc.	49	Richmond	Jonathan Green, Inc.
15	Aztec	Turf Merchants, Inc.	50	Tip	NPI Seed, Inc.
16	Sundance	Seaboard Seed Co.	51	Ky-31	-
17	Fatima	Advanta Seeds West	52	Bel 86-1	Jack Murray - USDA, ARS
18	Austin (Normarc 25)	Normarc Seed Co.	53	Bel 86-2	Jack Murray - USDA, ARS
19	Phoenix (Normarc 77)	Normarc Seed Co.	54	PST-5EN	Pure-Seed Testing, Inc.
20	Anthem (KWS-DUR)	KWS-Einbeck	55	Winchester (PST-5F2)	E. F. Burlingham
21	Twilight (KWS-BG-6)	Turf Merchants	56	Finelawn 5GL	Finelawn Research Corp.
22	Willamette	Willamette Seed Co.	57	Finelawn I	Finelawn Research Corp.
23	Chieftain	Roberts Seed Co.	58	Rebel	Loft's Seed, Inc.
24	Maverick II (Pick GH6)	Pickseed West, Inc.	59	Rebel II	Loft's Seed, Inc.
25	Thoroughbred	Pickseed West, Inc.	60	Tribute	Loft's Seed, Inc.
26	Crossfire (Pick TF9)	Pickseed West, Inc.	61	Arid	Jacklin Seed Co.
27	Olympic II (PST-50L)	Turf-Seed, Inc.	62	Wrangler	Jacklin Seed/LESCO, Inc.
28	Murietta (PST-5D7)	Pure-Seed Testing, Inc.	63	Mesa	Jonathan Green, Inc.
29	Cimmaron	LESCO, Inc.	64	JB-2	Jacklin Seed Co.
30	Bonanza	Proprietary Seeds	65	Falcon	E. F. Burlingham
31	PST-5AG	Pure-Seed Testing, Inc.			
32	Silverado (PST-5BL)	Pure-Seed Testing, Inc.			
33	Safari (PST-5MW)	Pure-Seed Testing, Inc.			
34	Trailblazer	LESCO, Inc.			
35	Eldorado (PST-5D1)	Pure-Seed Testing, Inc.			

TABLE A.

1988-91 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN
THE 1987 NATIONAL TALL FESCUE 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	61-150	376-500	3.1-4.0	FULL SUN	2.6-3.0	TO PREVENT DORMANCY
AZ1	SANDY LOAM	7.6-8.5	61-150	376-500	2.1-3.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
CA1	LOAM	6.1-6.5	61-150	0-150	3.1-4.0	FULL SUN	1.6-2.0	TO PREVENT STRESS
CA2	SILTY CLAY LOAM	6.6-7.0	-	-	5.1-6.0	FULL SUN	1.6-2.0	TO PREVENT STRESS
CA3	SANDY LOAM	6.6-7.0	-	-	5.1-6.0	FULL SUN	1.6-2.0	TO PREVENT STRESS
DC2	LOAM	6.6-7.0	451+	376-500	1.1-2.0	FULL SUN	2.1-2.5	NO IRRIGATION
GA1	SANDY CLAY LOAM	5.6-6.0	61-150	151-240	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
IA1	SANDY CLAY LOAM	7.1-7.5	0-60	241-375	1.1-2.0	FULL SUN	2.6-3.0	NO IRRIGATION
ID2	LOAM	4.6-5.5	0-60	0-150	2.1-3.0	FULL SUN	1.1-1.5	TO PREVENT STRESS
IL1	SILT LOAM AND SILT	-	-	-	3.1-4.0	FULL SUN	1.6-2.0	TO PREVENT STRESS
IL2	SILTY CLAY AND CLAY	6.1-6.5	61-150	151-240	2.1-3.0	FULL SUN	2.1-2.5	TO PREVENT DORMANCY
IN1	SILT LOAM AND SILT	6.6-7.0	61-150	376-500	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
IN2	SILT LOAM AND SILT	6.6-7.0	61-150	241-375	0.0-1.0	FULL SUN	3.6-4.0	NO IRRIGATION
KS1	SANDY CLAY LOAM	7.1-7.5	151-270	376-500	3.1-4.0	FULL SUN	3.1-3.5	TO PREVENT STRESS
KS2	SANDY LOAM	6.6-7.0	61-150	241-375	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT DORMANCY
MD1	SANDY LOAM	6.6-7.0	271-450	0-150	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT DORMANCY
MI1	SANDY LOAM	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	1.6-2.0	TO PREVENT STRESS
MO1	SILT LOAM AND SILT	6.1-6.5	61-150	0-150	2.1-3.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
MO3	SILTY CLAY LOAM	7.1-7.5	0-60	151-240	3.1-4.0	FULL SUN	2.6-3.0	ONLY DURING SEVERE STRESS
NE1	SANDY CLAY LOAM	6.6-7.0	0-60	151-240	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
NJ1	LOAM	6.1-6.5	61-150	151-240	0.0-1.0	FULL SUN	1.6-2.0	TO PREVENT DORMANCY
NJ2	SANDY LOAM	6.1-6.5	151-270	151-240	4.1-5.0	FULL SUN	1.1-1.5	TO PREVENT STRESS
NJ3	-	-	-	-	-	FULL SUN	1.6-2.0	NO IRRIGATION
NY1	SANDY LOAM	5.6-6.0	0-60	0-150	2.1-3.0	FULL SUN	1.1-1.5	TO PREVENT DORMANCY
NY2	SANDY LOAM	5.6-6.0	0-60	0-150	2.1-3.0	FULL SUN	2.6-3.0	TO PREVENT DORMANCY
OH2	SILTY CLAY LOAM	-	-	-	3.1-4.0	FULL SUN	1.6-2.0	ONLY DURING SEVERE STRESS
OK1	-	-	-	-	-	FULL SUN	2.1-2.5	TO PREVENT STRESS
OR1	SILT LOAM AND SILT	5.6-6.0	151-270	241-375	4.1-5.0	FULL SUN	1.1-1.5	TO PREVENT DORMANCY
OR2	SILTY CLAY LOAM	5.6-6.0	151-270	376-500	4.1-5.0	FULL SUN	1.6-2.0	TO PREVENT DORMANCY
RI1	SILT LOAM AND SILT	6.1-6.5	271-450	241-375	3.1-4.0	FULL SUN	1.1-1.5	TO PREVENT STRESS
TX1	SILTY CLAY AND CLAY	7.6-8.5	451+	501+	1.1-2.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
TX2	SILTY CLAY AND CLAY	7.6-8.5	451+	501+	1.1-2.0	FULL SUN	1.1-1.5	TO PREVENT STRESS
UB1	SANDY LOAM	6.1-6.5	271-450	151-240	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT DORMANCY
UB2	SANDY LOAM	6.1-6.5	271-450	151-240	0.0-1.0	FULL SUN	2.6-3.0	NO IRRIGATION
VA1	SILT LOAM AND SILT	6.1-6.5	61-150	241-375	3.1-4.0	FULL SUN	2.6-3.0	ONLY DURING SEVERE STRESS
VA2	SANDY LOAM	5.6-6.0	0-60	0-150	2.1-3.0	FULL SUN	1.1-1.5	ONLY DURING SEVERE STRESS
VA3	SANDY LOAM	6.1-6.5	151-270	241-375	3.1-4.0	FULL SUN	2.1-2.5	ONLY DURING SEVERE STRESS
VA4	SANDY LOAM	6.1-6.5	61-150	241-375	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT STRESS
VA6	SANDY CLAY	6.6-7.0	271-450	241-375	3.1-4.0	FULL SUN	2.1-2.5	NO IRRIGATION
WA4	SILT LOAM AND SILT	6.6-7.0	61-150	376-500	0.0-1.0	DENSE SHADE	2.1-2.5	ONLY DURING SEVERE STRESS
WA5	LOAM	4.6-5.5	0-60	0-150	1.1-2.0	FULL SUN	2.1-2.5	NO IRRIGATION
WA6	SANDY LOAM	7.1-7.5	151-270	241-375	0.0-1.0	PARTIAL SHADE	2.1-2.5	TO PREVENT STRESS

NOTE: SINCE SITE DESCRIPTIONS AND MANAGEMENT PRACTICES CAN VARY FROM YEAR TO YEAR, THE ABOVE INFORMATION IS ONLY A GENERAL INDICATION OF MANAGEMENT LEVELS FOR TEST LOCATIONS DURING THE TESTING PERIOD (1988-1991). TO DETERMINE THE EXACT MANAGEMENT SCHEMES FOR EACH YEAR, PLEASE CONSULT NTEP ANNUAL PROGRESS REPORTS FROM 1988-1991.

TABLE B.

LOCATIONS AND DATA COLLECTED IN 1988-91

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
AR1		X	X	X	X	X	X	X	X	X	X	X
AZ1	X	X	X	X	X	X	X	X	X	X	X	X
CA1	X	X	X	X	X	X	X	X	X	X	X	X
CA2	X	X	X	X	X	X	X	X	X	X	X	X
CA3	X	X	X	X	X	X	X	X	X	X	X	X
DC2					X	X					X	
GA1				X	X		X	X	X	X		
IA1				X	X	X	X	X	X	X		
ID2	X	X	X	X			X		X	X	X	
IL1					X	X	X	X		X		
IL2			X	X	X	X	X	X	X	X		
IN1				X	X	X	X	X	X			
IN2				X	X	X	X	X	X			
KS1				X	X	X	X	X	X	X	X	
KS2				X	X	X	X	X	X	X		
MD1				X	X	X	X	X	X	X	X	
MI1					X	X	X	X	X	X	X	
MO1			X	X	X	X	X	X		X	X	X
MO3			X	X	X	X	X	X	X	X	X	
NE1					X	X	X	X	X			
NJ1			X	X	X	X	X	X	X	X	X	
NJ2				X	X	X	X	X	X	X	X	X
NJ3				X	X	X	X	X	X	X	X	
NY1				X	X	X	X	X	X	X		
NY2				X	X	X	X	X	X	X		
OH2				X	X			X	X		X	
OK1				X	X	X	X	X	X	X	X	X
OR1	X	X	X	X	X	X	X	X	X	X	X	X
OR2	X	X	X	X	X	X	X	X	X	X	X	X
RI1				X	X	X	X	X	X	X	X	
TX1	X	X	X	X	X	X	X	X	X	X	X	X
TX2	X	X	X	X	X	X	X	X	X	X	X	X
UB1				X	X	X	X	X	X	X	X	
UB2				X	X	X	X	X	X	X	X	
VA1				X	X	X	X	X	X	X	X	
VA2				X	X	X	X			X		
VA3				X	X	X	X	X	X	X	X	X
VA4			X	X	X	X	X	X	X	X	X	
VA6			X	X	X	X	X	X	X	X	X	
WA4	X									X		X
WA5									X			
WA6												

TABLE B. (continued)

LOCATIONS AND DATA COLLECTED IN 1988-91

LOCATION	GENETIC COLOR RATING	SPRING GREENUP RATING	LEAF TEXTURE RATING	SEEDLING VIGOR	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	FROST TOLERANCE	WINTER COLOR
AR1	X		X		X	X	X					X
AZ1	X		X	X	X	X	X	X	X	X		X
CA1					X	X	X					X
CA2												
CA3			X									
DC2												
GA1	X											
IA1												
ID2	X	X	X	X	X		X	X				X
IL1												
IL2				X								
IN1												
IN2												
KS1												
KS2	X			X								
MD1	X											
MI1			X						X			
MO1								X	X			
MO3	X	X	X	X	X	X	X	X	X	X		
NE1	X											
NJ1	X											
NJ2	X											
NJ3	X	X	X		X	X	X					
NY1												
NY2												
OH2	X		X			X						
OK1	X	X				X	X	X	X	X		
OR1												
OR2												
RI1												
TX1												
TX2												
UB1												
UB2												
VA1												
VA2								X				
VA3	X	X						X	X		X	
VA4												
VA6	X									X		
WA4	X		X	X	X		X	X				X
WA5				X								
WA6								X		X		

TABLE B. (continued)

LOCATIONS AND DATA COLLECTED IN 1988-91

LOCATION	DROUGHT TOLERANCE RECOVERY	FUSARIUM PATCH	LEAF SPOT	DOLLAR SPOT	BROWN PATCH	PYTHIUM BLIGHT	CHINCH BUGS	APHIDS	FALL COLOR	VERTICAL GROWTH
AR1					X					
AZ1					X		X		X	
CA1										
CA2										
CA3										
DC2										
GA1					X	X				
IA1										
ID2		X								
IL1										
IL2					X					
IN1					X					
IN2										
KS1										
KS2										
MD1										
MI1										
MO1										
MO3										
NE1										
NJ1					X					
NJ2										
NJ3			X		X	X				
NY1										
NY2										
OH2	X			X	X				X	X
OK1										
OR1		X								
OR2		X								
RI1										
TX1			X					X		
TX2			X					X		
UB1					X					
UB2			X							
VA1					X					
VA2										
VA3					X					X
VA4					X					
VA6					X					
WA4										X
WA5										
WA6										

TABLE 1.

MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS AT
 FORTY-TWO LOCATIONS IN THE UNITED STATES
 1988-91 DATA

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

NAME	AR1	AZ1	CA1	CA2	CA3	DC2	GA1	IA1	ID2	IL1	IL2	IN1	IN2	KS1	KS2	MD1	MI1	MO1	MO3	NE1	NJ1	NJ2
* HUBBARD 87	5.2	6.5	6.9	6.2	6.8	4.7	7.0	7.1	6.4	7.5	5.9	7.5	4.7	7.5	7.6	6.3	6.3	5.5	6.4	6.6	6.1	7.2
* SHENANDOAH (PE-7E)	6.0	6.6	6.8	6.2	6.8	4.1	6.9	7.4	6.4	7.7	6.4	7.1	4.9	7.4	7.6	6.4	5.4	5.4	6.2	6.3	5.9	6.9
* SAFARI (PST-5MW)	4.2	6.8	6.6	6.1	6.7	4.4	6.8	6.6	5.9	7.3	5.3	6.7	4.5	7.4	7.3	6.1	6.2	5.3	6.4	6.2	6.2	6.8
* GUARDIAN (PICK 845EN)	6.2	6.6	6.8	6.1	6.7	3.1	7.0	6.7	5.7	7.3	5.6	6.9	4.8	7.4	7.1	6.3	5.7	5.2	6.1	6.5	6.1	7.0
* AUSTIN (NORMARC 25)	4.8	6.6	6.4	6.2	6.7	5.7	7.0	6.9	6.4	7.7	.	7.0	.	7.1	7.1	6.0	5.4	5.6	6.0	6.0	5.5	6.0
* COCHISE (PICK 127)	5.7	6.4	6.2	6.0	6.6	5.0	7.1	6.5	5.9	7.5	5.9	6.8	4.6	7.4	7.0	5.8	6.3	5.5	6.4	5.8	6.3	6.8
* AZTEC	5.2	6.5	6.8	6.2	6.7	3.4	6.7	6.1	6.0	7.3	6.0	6.6	4.4	7.6	7.2	6.3	5.6	4.9	6.3	5.6	6.4	6.6
PE-7	5.3	6.5	6.6	6.1	6.8	3.9	7.2	6.6	6.2	7.5	5.1	7.0	4.7	7.4	7.7	6.3	6.0	5.3	6.4	6.3	5.7	6.8
* MONARCH	5.6	6.2	6.8	6.2	6.7	3.9	6.8	6.3	6.2	7.1	5.9	6.9	4.6	7.1	7.6	5.9	5.7	5.0	6.1	5.8	6.6	6.5
* AMIGO (PST-5HF)	5.6	6.5	6.6	6.1	6.7	4.1	6.7	6.6	6.2	7.5	5.0	6.8	4.7	7.3	7.6	6.1	6.0	5.5	5.9	5.9	5.7	6.1
* CROSSFIRE (PICK TF9)	6.4	6.2	6.7	6.2	6.7	4.4	7.3	6.6	6.1	7.2	5.8	6.8	4.5	7.6	7.5	6.2	6.1	4.7	6.3	5.4	6.4	6.8
* AVANTI (PICK DM)	4.6	6.5	6.7	6.3	6.7	4.0	6.9	6.5	6.2	7.0	5.7	6.6	4.5	7.9	7.0	6.1	5.7	5.0	6.2	6.4	6.2	6.6
* VEGAS (NORMARC 99)	6.2	6.2	6.3	6.1	6.7	4.0	6.5	7.2	5.7	7.0	6.1	6.5	4.7	7.5	7.5	5.8	5.1	5.6	6.4	5.7	6.5	6.9
* TRIBUTE	5.4	6.6	6.2	6.1	6.8	4.4	7.1	7.2	6.0	7.0	5.8	6.7	5.0	7.1	7.3	6.2	5.9	5.6	5.8	6.0	5.7	5.8
* PHOENIX (NORMARC 77)	4.9	6.4	6.5	6.0	6.7	5.3	6.9	6.8	6.2	7.6	5.8	6.9	4.5	7.0	7.2	6.4	5.9	5.6	6.1	6.0	5.1	5.9
* THOROUGHBRED	5.4	6.6	6.4	6.0	6.8	6.1	6.7	6.5	6.3	7.2	5.0	6.9	4.6	6.9	7.1	5.9	6.1	5.0	5.7	6.3	5.1	5.8
BEL 86-2	5.4	6.4	6.9	6.1	6.7	3.1	7.0	6.7	6.0	6.8	5.7	6.9	4.7	7.3	7.1	6.5	5.6	5.2	5.9	6.2	5.3	5.4
* ELDORADO (PST-5D1)	5.0	6.4	6.4	6.1	6.7	5.3	6.6	6.6	6.2	7.1	5.5	6.6	4.6	7.4	7.0	6.0	5.9	5.4	6.2	5.8	6.2	6.8
PST-5AG	5.2	6.3	6.5	6.2	6.7	4.3	6.2	6.2	6.1	7.4	5.5	6.8	4.7	7.1	7.0	6.2	6.3	4.7	6.0	6.0	5.0	5.0
* SHORSTOP (PICK DDF)	5.4	6.2	6.5	6.2	6.6	3.2	6.3	6.5	5.8	6.9	5.6	6.6	4.8	7.6	7.3	5.8	6.3	5.4	5.9	5.9	5.7	6.3
* OLYMPIC II (PST-5OL)	6.0	6.4	6.6	6.1	6.7	4.1	6.9	6.2	5.4	6.9	5.5	6.8	4.5	7.0	7.4	6.1	6.1	5.0	5.8	5.2	5.3	5.5
* REBEL II	5.4	6.5	6.4	6.1	6.8	5.9	6.9	6.4	6.0	7.2	5.4	6.9	4.6	6.8	7.1	6.4	6.1	5.4	5.7	5.5	5.1	5.3
* BONANZA	5.2	6.2	6.5	6.0	6.7	5.6	6.6	6.4	6.0	7.5	5.4	6.9	4.8	6.8	7.1	6.1	6.1	5.1	6.1	5.8	5.4	5.6
PST-5AP	5.2	6.5	6.1	6.1	6.6	4.2	6.4	6.9	5.9	7.3	6.1	6.6	4.7	7.1	7.2	6.1	5.8	5.4	5.9	6.0	5.1	5.7
* WRANGLER	5.4	6.1	6.7	6.0	6.7	5.4	6.3	6.2	6.2	7.3	5.9	7.0	4.7	6.9	6.8	6.2	6.1	5.3	5.8	5.8	5.1	5.7
* WINCHESTER (PST-5F2)	4.8	6.5	6.3	5.9	6.7	4.4	6.8	6.6	6.1	7.0	5.7	6.6	4.6	7.0	7.2	6.0	5.9	5.4	6.0	5.6	5.1	6.1
* MAVERICK II (PICK GH6)	5.1	6.3	6.5	6.1	6.7	4.0	6.8	6.3	5.6	7.1	5.7	6.7	4.1	7.3	7.2	5.7	6.0	4.8	5.7	5.9	5.5	6.5
* CHIEFTAIN	4.7	6.4	6.3	6.1	6.7	4.0	6.5	6.3	6.1	7.2	5.4	6.9	4.5	7.1	6.9	6.5	5.9	5.3	6.0	5.6	5.2	5.9
* MESA	5.3	6.5	6.2	6.0	6.7	5.9	7.0	7.1	6.0	7.5	5.4	6.6	4.8	6.9	7.2	6.2	6.0	5.4	5.8	5.5	5.0	5.5
* ANTHEM (KWS-DUR)	5.1	6.4	6.4	6.1	6.7	3.6	6.9	6.8	6.7	7.4	5.3	6.6	4.5	7.2	6.9	5.6	5.9	5.5	6.5	5.0	5.8	6.9
PST-5EN	5.6	6.5	.	6.0	6.7	4.9	6.6	6.7	6.2	7.1	5.0	6.6	4.7	6.9	6.9	6.3	5.8	5.3	5.9	5.5	5.0	5.1
* TRAILBLAZER	4.3	6.2	6.6	6.1	6.8	4.2	5.7	6.2	5.8	7.1	5.3	6.7	4.5	7.4	7.1	5.7	5.9	5.4	6.2	5.3	5.7	6.0
* ARRIBA (PST-5DM)	5.2	5.9	6.8	6.1	6.7	3.2	6.6	6.6	5.9	7.0	5.7	6.7	4.6	7.0	6.6	6.2	5.5	5.0	5.8	6.1	5.3	6.3
* SILVERADO (PST-5BL)	5.0	6.3	6.8	6.1	6.7	3.7	6.6	6.2	6.0	6.8	5.4	6.4	4.5	7.3	7.1	5.8	5.8	5.1	6.0	5.5	6.3	6.6
* OLYMPIC	5.3	6.5	6.0	6.0	6.7	5.2	6.4	6.1	5.8	7.3	5.3	6.9	4.3	6.9	7.1	6.0	6.2	5.2	5.5	5.9	4.9	5.1
* JAGUAR II	5.0	6.2	6.3	6.0	6.8	4.2	6.9	6.6	6.4	7.1	5.2	6.8	4.4	6.8	7.0	6.4	6.6	5.2	5.7	5.4	4.7	5.2
* TRADITION (PST-DBC)	5.8	6.3	6.1	6.0	6.8	4.4	6.9	6.7	6.2	7.1	5.1	6.7	4.7	6.9	7.2	6.0	5.9	4.8	5.7	5.2	4.8	5.6
* TWILIGHT (KWS-BG-6)	5.9	6.8	6.3	5.9	6.7	3.2	6.0	6.4	6.4	6.3	.	6.4	4.5	8.2	6.9	5.7	5.8	4.9	7.2	5.3	5.4	6.0
* SUNDANCE	4.9	6.4	6.0	6.1	6.7	4.4	6.5	6.7	5.8	7.2	5.6	6.6	4.6	7.1	7.1	5.8	6.1	4.9	6.0	5.8	5.3	5.4
* APACHE	5.7	6.3	6.2	5.9	6.7	4.2	6.5	6.8	5.9	7.3	5.7	6.8	4.6	7.2	7.1	5.9	5.8	4.7	5.8	6.1	4.8	5.1
* TITAN	5.0	6.3	5.8	6.0	6.7	5.4	7.0	6.5	6.4	7.1	5.6	6.7	4.6	6.7	7.0	6.3	6.0	5.6	5.5	5.3	4.6	5.1
JB-2	5.0	6.3	6.4	6.0	6.8	5.0	6.6	6.2	6.3	6.9	5.7	6.7	4.6	6.9	6.4	5.9	5.9	4.9	5.5	6.0	4.6	5.1
* BARNONE (BAR FA 7851)	5.0	6.3	6.4	6.0	6.7	5.7	7.0	6.6	6.2	7.0	.	6.6	4.7	6.9	7.1	5.8	5.5	4.9	5.9	5.9	4.6	5.1
* TAURUS	5.3	6.5	6.4	6.1	6.7	3.8	6.4	6.4	5.9	7.0	5.6	6.6	4.6	6.8	6.9	6.3	5.9	4.9	5.7	5.8	5.2	4.8
* BRAHMA (LEGEND)	5.5	6.0	6.5	6.1	6.6	3.9	6.2	6.3	5.9	6.7	5.5	6.9	4.6	7.0	7.2	6.0	6.3	5.0	5.9	6.3	5.3	5.7

TABLE 1. (continued)

MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS AT
 FORTY-TWO LOCATIONS IN THE UNITED STATES
 1988-91 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

NAME	AR1	AZ1	CA1	CA2	CA3	DC2	GA1	IA1	ID2	IL1	IL2	IN1	IN2	KS1	KS2	MD1	MI1	MO1	MO3	NE1	NJ1	NJ2
* CIMMARON	5.1	6.4	6.4	5.9	6.8	4.3	6.3	6.6	6.2	7.2	5.4	6.6	4.3	6.9	7.4	6.1	6.2	4.8	5.8	5.2	4.7	5.3
* ARID	5.8	6.2	6.1	6.1	6.7	4.8	6.8	6.3	6.2	6.8	5.7	6.6	4.6	6.6	6.5	5.9	6.0	5.1	5.5	5.5	4.5	4.5
* FINELAWN 5GL	5.0	5.8	6.1	6.0	6.7	6.0	6.6	6.5	6.0	6.7	4.8	6.9	4.8	6.6	6.7	5.8	5.6	5.1	5.4	5.5	4.1	4.7
* JAGUAR	4.5	6.2	6.1	6.1	6.7	4.8	7.0	6.4	5.8	7.5	5.2	6.9	4.6	6.8	6.4	6.0	5.6	5.7	5.4	5.5	4.5	4.5
* REBEL	5.3	6.0	6.2	6.0	6.7	5.9	6.3	6.2	6.2	6.8	4.9	6.6	4.6	6.6	6.6	6.0	6.0	5.2	5.5	5.3	4.4	4.3
* CAREFREE	4.5	6.5	6.1	6.0	6.8	4.8	5.6	6.3	6.3	7.0	5.7	6.7	4.6	7.1	7.0	5.8	6.1	5.1	5.4	5.9	4.6	4.8
* MURIETTA (PST-5D7)	4.3	6.0	6.9	6.2	6.7	4.1	6.2	6.2	5.4	6.9	5.3	6.7	4.3	7.1	6.9	5.8	5.8	5.0	5.9	6.0	5.0	5.5
* TRIDENT	4.7	6.4	6.0	5.9	6.7	4.9	6.3	6.6	6.1	7.1	5.6	6.6	4.2	6.7	6.8	6.0	5.8	5.1	5.6	5.4	4.2	5.3
BEL 86-1	4.4	6.2	6.2	6.0	6.6	4.7	6.1	6.1	6.2	7.3	5.4	6.4	4.7	6.8	7.0	5.9	5.6	4.8	5.5	5.5	4.9	4.9
* ADVENTURE	4.7	6.2	6.3	6.0	6.8	5.3	6.5	6.0	6.0	7.2	5.8	6.8	4.5	6.8	6.5	5.9	5.5	4.6	5.4	5.6	3.8	4.2
* EMPEROR (PICK SLD)	4.6	6.2	6.4	6.2	6.7	2.6	6.4	5.9	5.1	6.3	6.1	6.4	4.5	7.2	6.9	5.9	6.1	4.7	6.0	5.2	5.3	5.7
* FALCON	4.5	6.0	5.7	5.9	6.6	4.3	6.7	6.3	5.4	6.8	5.4	6.2	4.6	6.5	6.2	6.0	6.1	4.6	5.4	5.2	3.7	3.9
* PACER	5.2	5.7	5.5	5.8	6.6	5.2	6.6	6.2	6.0	6.6	5.4	6.3	4.5	6.5	6.2	5.8	5.6	4.8	5.5	5.0	3.8	3.6
* FINELAWN I	5.3	6.0	5.8	5.6	6.5	5.7	6.4	6.1	6.2	6.7	4.8	6.5	4.4	6.2	6.3	5.8	5.9	5.0	5.1	5.2	3.4	3.9
* WILLAMETTE	5.2	6.2	5.7	5.8	6.6	4.8	5.9	6.1	5.7	6.5	5.3	6.7	4.4	6.2	6.7	5.9	6.1	5.2	5.4	4.1	3.4	3.9
* RICHMOND	4.7	6.1	5.6	5.8	6.6	4.4	6.1	5.8	6.0	6.7	5.2	6.2	4.6	6.3	6.4	5.6	5.8	4.9	5.2	5.2	3.6	3.6
* AQUARA (SYN GA)	5.1	6.0	5.3	5.9	6.6	4.7	6.2	6.1	5.7	6.3	5.0	6.4	4.4	6.3	6.5	5.4	5.7	4.7	5.2	4.9	3.4	3.6
* FATIMA	5.0	6.1	5.3	5.8	6.4	4.9	6.5	6.1	6.0	6.5	5.3	6.0	4.4	6.1	6.2	5.8	5.8	5.2	5.0	5.2	3.3	3.3
* TIP	5.1	6.1	5.7	5.9	6.6	4.3	5.8	5.9	5.7	6.5	5.0	6.0	4.2	6.3	5.8	5.7	5.8	5.1	4.9	4.3	3.0	3.3
* KY-31	4.4	5.6	4.7	5.0	5.6	6.0	5.2	5.6	5.3	6.0	5.1	5.7	4.2	5.3	5.3	5.1	5.3	4.4	4.4	4.3	2.3	2.4
LSD VALUE	0.6	0.6	0.3	0.2	0.3	1.7	0.6	0.7	0.7	0.5	1.1	0.3	0.5	0.3	0.6	0.7	0.4	1.4	0.5	0.8	0.4	0.5

* COMMERCIALY AVAILABLE IN THE UNITED STATES IN 1992

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).

TABLE 1. (continued)

MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS AT
 FORTY-TWO LOCATIONS IN THE UNITED STATES
 1988-91 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF																		MEAN	
	NJ3	NY1	NY2	OH2	OK1	OR1	OR2	RI1	TX1	TX2	UB1	UB2	VA1	VA2	VA3	VA4	VA6	WA4		WA6
HUBBARD 87	5.7	5.7	6.1	7.1	5.6	6.8	5.6	6.2	5.1	5.1	7.7	6.9	6.4	6.0	5.9	6.5	4.8	6.8	3.7	6.2
SHENANDOAH (PE-7E)	5.6	5.1	5.4	7.3	5.9	6.6	5.3	5.9	4.7	5.0	7.7	7.1	6.4	5.6	5.9	6.6	5.3	5.9	4.7	6.2
SAFARI (PST-5MW)	5.8	5.3	5.5	7.1	5.6	6.5	5.1	6.3	4.7	5.2	7.5	6.8	5.9	5.6	5.7	6.0	4.4	6.9	6.7	6.1
GUARDIAN (PICK 845PN)	5.7	4.9	5.4	6.9	5.5	6.6	5.3	5.6	4.7	5.2	7.7	6.9	6.2	5.5	5.7	6.4	4.7	6.9	4.7	6.0
AUSTIN (NORMARC 25)	5.1	5.2	5.6	6.8	5.5	5.8	5.1	6.2	4.9	4.8	7.4	6.7	6.2	5.1	5.6	5.8	5.0	.	5.3	6.0
COCHISE (PICK 127)	5.5	5.1	5.6	6.7	5.3	6.4	5.1	6.0	4.8	4.6	7.6	7.1	6.0	5.2	5.8	6.3	4.4	5.1	5.7	6.0
AZTEC	5.9	4.7	5.2	6.8	5.3	6.4	4.9	5.9	5.2	4.7	7.7	7.0	6.0	5.4	5.7	6.2	4.5	6.0	7.3	6.0
PE-7	5.5	5.0	5.3	7.1	5.7	6.2	5.0	5.9	5.0	4.5	7.7	7.2	6.2	5.3	5.6	5.9	4.6	6.3	3.3	6.0
MONARCH	5.6	4.8	5.0	6.8	5.4	6.5	5.1	6.3	4.6	4.7	7.5	6.9	6.1	5.2	5.9	6.2	4.5	4.8	7.7	6.0
AMIGO (PST-5HF)	5.4	5.3	5.6	7.0	5.1	6.9	5.2	6.1	5.1	4.8	7.5	6.8	6.1	5.6	5.6	6.3	4.5	5.6	5.3	6.0
CROSSFIRE (PICK TF9)	5.6	4.7	5.7	6.8	6.0	6.4	4.8	6.3	4.8	5.0	7.5	6.9	6.0	5.5	5.5	6.3	4.2	5.1	3.7	6.0
AVANTI (PICK DM)	5.5	4.6	5.4	6.7	5.5	6.6	5.2	5.9	5.0	4.8	7.5	7.1	6.0	5.6	5.6	6.1	4.7	6.3	5.0	6.0
VEGAS (NORMARC 99)	5.6	4.8	5.0	6.5	5.4	6.5	5.0	5.6	5.0	5.1	7.6	7.1	5.8	5.7	5.7	6.4	4.7	5.9	4.3	5.9
TRIBUTE	5.0	4.5	4.9	6.9	5.7	6.1	5.0	6.2	5.0	4.7	7.4	6.8	6.1	5.6	5.7	6.3	4.8	5.3	3.7	5.9
PHOENIX (NORMARC 77)	5.0	4.8	5.5	7.0	5.5	6.0	5.2	6.1	4.8	5.1	7.2	6.7	6.2	5.6	5.7	5.9	4.9	5.7	2.3	5.9
THOROUGHbred	5.3	4.6	4.7	6.9	5.6	5.7	5.2	6.3	4.1	4.8	7.2	6.6	6.0	5.3	5.5	6.0	4.8	6.6	5.7	5.9
BEL 86-2	5.2	4.6	5.1	7.1	5.3	6.0	5.3	6.1	4.8	4.6	7.4	6.9	6.4	5.6	6.0	6.7	4.7	6.4	3.7	5.9
ELDORADO (PST-5D1)	5.3	4.5	5.1	6.6	5.4	6.2	5.0	5.4	4.6	5.0	7.5	6.9	5.7	5.8	5.7	5.8	5.1	4.7	4.3	5.9
PST-5AG	5.3	4.7	5.1	6.9	5.8	6.7	5.3	6.3	4.9	5.0	7.1	6.8	6.2	5.4	5.4	6.4	4.2	6.2	5.3	5.9
SHORTSTOP (PICK DDF)	5.5	4.5	4.6	6.5	5.3	6.4	5.0	5.1	4.5	4.7	7.6	7.0	6.0	5.5	5.8	6.4	4.4	6.0	6.3	5.9
OLYMPIC II (PST-5OL)	5.2	4.9	5.3	6.9	5.7	6.1	4.8	6.0	5.0	5.1	7.2	6.4	5.8	5.5	5.6	6.1	5.3	6.2	5.3	5.8
REBEL II	5.4	4.7	5.1	7.0	5.5	6.0	4.9	6.5	4.6	4.7	7.2	6.5	6.2	5.6	5.4	6.1	4.9	5.3	4.3	5.8
BONANZA	4.9	4.8	5.1	7.4	5.6	6.0	4.8	6.0	5.0	4.7	7.4	6.7	5.9	5.1	5.6	6.2	4.9	5.3	4.0	5.8
PST-5AP	4.9	4.7	5.0	6.6	5.9	5.6	5.0	5.8	4.9	4.5	7.2	6.6	5.9	5.7	5.4	6.0	4.7	6.3	5.3	5.8
WRANGLER	5.2	5.0	5.2	7.0	5.6	6.2	5.2	5.8	4.7	4.6	7.3	6.4	6.0	5.4	5.4	6.1	5.1	4.4	4.7	5.8
WINCHESTER (PST-5F2)	5.0	4.2	4.9	6.9	5.5	5.4	4.9	6.1	4.9	4.5	7.3	6.7	5.9	5.6	5.7	5.9	5.3	5.6	6.7	5.8
MAVERICK II (PICK GH6)	5.4	4.8	5.3	6.5	5.6	5.9	4.6	6.0	5.0	4.7	7.3	6.8	5.8	5.5	5.5	6.3	5.3	6.7	4.0	5.8
CHIEFTAIN	5.4	4.9	5.6	7.3	5.6	6.2	5.1	6.3	4.8	4.4	7.2	6.5	5.9	5.6	5.7	6.1	4.9	5.7	3.3	5.8
MESA	4.5	4.5	4.7	6.9	5.5	5.8	4.9	5.5	4.5	4.8	7.1	6.6	6.0	5.0	5.5	6.1	4.9	5.0	5.7	5.8
ANTHEM (KWS-DUR)	5.3	4.1	4.8	6.7	5.2	6.2	5.0	5.7	4.5	4.5	7.5	6.7	5.9	5.2	5.6	6.2	4.1	6.7	2.7	5.8
PST-5EN	4.8	4.8	5.3	6.8	5.2	5.7	5.3	5.7	4.9	4.7	7.2	6.6	6.0	5.5	5.5	6.1	5.5	5.8	4.0	5.8
TRAILBLAZER	5.1	4.8	5.4	7.2	5.8	6.3	5.5	5.5	5.4	4.8	7.2	6.7	5.6	5.0	5.3	5.6	4.7	6.1	4.3	5.8
ARRIBA (PST-5DM)	5.2	4.7	5.2	6.8	5.6	6.0	5.2	6.1	4.8	4.6	7.3	6.3	6.1	5.3	5.6	6.2	4.5	4.4	5.7	5.8
SILVERADO (PST-5BL)	5.0	4.3	4.9	6.6	5.6	6.8	4.9	6.0	4.7	4.3	7.5	6.6	5.9	5.3	5.3	5.9	3.9	5.3	4.7	5.7
OLYMPIC	4.7	5.1	5.3	6.9	5.4	5.6	5.1	6.0	4.6	4.8	7.0	6.3	5.7	5.3	5.8	5.5	4.7	6.3	5.0	5.7
JAGUAR II	4.7	4.7	5.2	6.7	5.7	6.1	5.2	6.1	4.5	4.6	7.1	6.6	6.2	5.0	5.2	5.8	4.6	5.3	5.0	5.7
TRADITION (PST-DBC)	4.9	4.5	5.1	6.9	5.6	5.6	5.1	5.5	4.8	4.3	7.2	6.3	5.9	5.4	5.3	6.1	4.4	5.7	5.7	5.7
TWILIGHT (KWS-BG-6)	5.0	3.8	4.7	6.8	5.2	5.9	4.6	5.3	5.3	5.0	7.2	6.5	5.4	5.0	5.3	5.6	4.3	6.6	5.3	5.7
SUNDANCE	5.2	4.0	4.4	6.8	5.6	5.4	4.8	5.6	4.7	4.4	7.1	6.4	5.7	5.3	5.8	5.8	4.8	5.4	5.7	5.7
APACHE	4.9	4.6	5.0	7.0	5.5	5.6	5.1	5.8	4.9	4.3	6.9	6.7	5.9	5.7	5.4	5.6	5.2	6.5	2.0	5.7
TITAN	4.8	4.3	4.7	6.8	5.7	5.3	4.8	5.5	4.5	4.6	6.8	6.3	5.9	5.6	5.6	6.0	5.2	5.2	4.3	5.7
JB-2	4.7	5.1	5.2	6.9	5.4	5.6	5.1	6.1	5.0	4.6	6.8	5.9	5.9	5.2	5.4	5.4	4.9	4.8	5.7	5.7
BARNONE (BAR FA 7851)	4.9	4.3	5.0	6.9	5.2	5.9	4.9	5.3	5.0	4.8	7.3	6.5	5.8	5.3	5.1	5.7	4.4	5.2	3.7	5.7
TAURUS	5.1	4.6	4.6	6.8	5.6	5.5	4.9	5.0	5.0	4.9	7.2	6.1	5.7	5.5	5.1	5.7	5.2	6.0	4.7	5.7
BRAHMA (LEGEND)	4.8	4.5	5.0	6.7	5.4	5.9	4.9	5.1	4.8	4.8	7.1	6.5	5.4	5.4	5.4	5.3	4.4	5.2	4.3	5.7

TABLE 1. (continued)

MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS AT
 FORTY-TWO LOCATIONS IN THE UNITED STATES
 1988-91 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF																			MEAN
	NJ3	NY1	NY2	OH2	OK1	OR1	OR2	RI1	TX1	TX2	UB1	UB2	VA1	VA2	VA3	VA4	VA6	WA4	WA6	
CIMMARON	4.5	4.7	5.1	7.0	5.3	5.4	4.5	5.5	5.0	4.9	7.3	6.6	5.7	5.4	5.4	5.2	4.6	4.7	5.3	5.7
ARID	4.5	4.6	5.2	6.3	5.7	5.3	5.0	5.7	5.0	4.5	6.7	6.2	5.6	5.4	5.3	5.8	4.7	5.4	5.0	5.6
FINELAWN 5GL	4.6	4.3	4.9	7.1	5.5	5.6	5.0	5.2	4.9	4.3	6.9	6.3	5.8	5.5	5.5	5.8	5.2	5.8	5.0	5.6
JAGUAR	4.5	4.6	4.8	7.0	5.5	5.5	5.2	6.2	4.9	4.8	6.9	6.1	5.9	5.3	5.3	5.7	4.3	5.4	4.7	5.6
REBEL	4.3	4.7	5.1	6.6	5.5	5.0	5.1	6.0	4.7	4.5	6.8	6.1	5.9	5.3	5.2	5.5	4.7	5.7	5.3	5.6
CAREFREE	4.6	4.1	4.8	6.5	5.3	5.3	5.1	5.2	4.2	4.5	6.9	6.4	5.4	4.9	5.2	5.6	4.9	6.2	5.7	5.6
MURILETTA (PST-5D7)	4.7	4.3	4.8	6.8	5.3	5.9	4.9	5.5	4.5	4.0	7.2	6.4	5.3	4.7	5.0	5.9	4.6	6.0	4.3	5.6
TRIDENT	3.6	4.5	4.6	6.6	5.2	5.3	5.1	4.9	4.8	4.8	7.1	6.3	5.4	5.3	5.0	5.4	4.8	5.7	4.3	5.5
BEL 86-1	4.9	3.9	4.5	7.0	5.5	5.1	4.8	5.1	4.4	4.3	7.0	6.4	5.7	5.2	5.4	5.6	4.1	4.9	4.3	5.5
ADVENTURE	4.5	4.5	5.1	6.9	5.1	5.6	5.1	5.5	5.0	4.3	6.6	5.8	5.5	5.2	5.3	5.3	4.5	5.1	3.7	5.5
EMPEROR (PICK SLD)	4.7	3.8	4.3	6.3	5.2	5.8	4.6	5.3	4.6	4.7	7.1	6.8	5.6	4.7	5.3	5.8	3.8	4.8	5.0	5.5
FALCON	4.1	4.4	4.8	6.9	5.5	4.9	4.9	5.4	4.8	5.0	6.4	5.8	5.6	5.3	5.3	5.5	4.8	5.2	6.3	5.4
PACER	4.2	4.1	4.4	6.4	5.6	4.5	4.8	4.8	4.7	4.7	6.6	5.6	5.2	5.1	4.9	5.4	4.7	5.7	5.3	5.4
FINELAWN I	3.8	3.9	4.3	6.8	5.5	4.7	5.0	5.5	4.6	4.3	6.4	5.6	5.3	5.2	5.0	5.4	4.9	4.4	3.7	5.3
WILLAMETTE	3.3	4.3	4.7	6.9	5.3	4.7	4.7	4.7	4.7	4.4	6.4	5.7	5.3	4.8	5.1	5.1	4.7	6.1	3.0	5.3
RICHMOND	4.0	4.1	4.6	6.2	5.3	4.7	4.8	5.1	4.3	4.8	6.5	5.6	5.2	4.7	4.8	5.3	4.6	5.4	3.3	5.2
AQUARA (SYN GA)	3.7	3.9	4.2	6.8	5.2	4.5	4.7	4.1	4.5	4.6	6.0	5.8	5.2	5.0	5.1	5.2	4.4	5.1	5.0	5.2
FATIMA	3.6	4.0	4.4	6.4	5.5	4.5	4.7	4.6	4.4	4.3	6.3	5.5	5.6	5.0	5.3	5.2	4.6	5.6	1.7	5.2
TIP	3.5	3.6	4.0	6.4	5.5	4.6	4.9	4.9	4.6	4.8	6.3	5.6	5.2	5.1	5.0	5.0	4.6	5.4	5.0	5.1
KY-31	3.1	3.5	3.9	6.4	5.4	3.4	4.6	4.1	4.4	4.2	5.1	4.6	5.0	5.1	4.5	4.4	4.3	4.3	3.7	4.7
LSD VALUE	0.4	0.6	0.5	0.5	0.5	0.4	0.6	0.8	0.8	0.9	0.4	0.3	0.3	0.5	0.5	0.3	0.7	1.1	2.9	0.1

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

TABLE 2.

MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS FOR
EACH MONTH GROWN AT FORTY-TWO LOCATIONS IN THE UNITED STATES
1988-91 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS 1/												MEAN
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
HUBBARD 87	5.5	5.2	6.0	6.2	6.5	6.4	6.2	6.2	6.3	6.5	6.4	5.7	6.3
SHENANDOAH (PE-7E)	5.2	5.1	5.8	6.2	6.5	6.3	6.2	6.1	6.3	6.6	6.4	5.6	6.3
GUARDIAN (PICK 845PN)	5.2	5.0	6.0	6.2	6.5	6.3	6.1	6.0	6.1	6.5	6.3	5.6	6.2
SAFARI (PST-5MW)	5.2	4.9	5.7	6.0	6.2	6.1	6.0	6.0	6.1	6.3	6.3	5.4	6.1
FE-7	5.1	4.7	5.7	6.1	6.3	6.3	6.0	5.9	6.1	6.3	6.1	5.4	6.1
CROSSFIRE (PICK TF9)	5.1	5.0	5.9	6.1	6.4	6.2	6.1	6.0	6.1	6.4	6.3	5.5	6.1
AMIGO (PST-5HF)	5.3	5.2	5.8	6.0	6.3	6.1	5.9	5.9	6.0	6.3	6.3	5.4	6.1
COCHISE (PICK 127)	5.0	4.9	5.9	6.2	6.4	6.3	6.0	5.9	6.0	6.3	6.1	5.3	6.1
AUSTIN (NORMARC 25)	4.9	4.8	5.7	6.0	6.3	6.2	5.9	5.9	5.9	6.2	6.1	5.2	6.1
AZTEC	5.2	4.7	5.6	5.9	6.3	6.2	6.0	5.8	6.1	6.4	6.3	5.4	6.0
AVANTI (PICK DM)	5.3	4.7	5.8	6.0	6.3	6.1	5.9	5.8	6.1	6.4	6.2	5.3	6.0
VEGAS (NORMARC 99)	5.3	5.0	5.9	6.0	6.4	6.2	5.9	5.9	6.0	6.3	6.2	5.5	6.0
MONARCH	5.1	5.0	5.7	6.0	6.3	6.2	6.0	5.9	6.1	6.3	6.2	5.3	6.0
TRIBUTE	5.2	5.0	5.8	5.8	6.1	6.0	6.0	6.0	6.0	6.2	6.1	5.3	6.0
EEL 86-2	5.2	4.7	5.7	6.0	6.2	6.0	5.9	5.9	6.0	6.2	6.1	5.3	6.0
PHOENIX (NORMARC 77)	5.2	4.9	5.7	5.9	6.1	6.1	5.9	5.9	6.0	6.1	6.0	5.3	6.0
EST-5AG	5.5	5.1	5.8	5.9	6.2	6.0	5.8	5.8	5.8	6.3	6.2	5.4	5.9
ELDORADO (PST-5D1)	5.1	4.8	5.7	5.9	6.3	6.2	5.8	5.8	5.9	6.2	6.2	5.3	5.9
OLYMPIC II (PST-5OL)	5.3	5.0	5.8	5.8	6.0	5.9	5.9	5.9	5.9	6.2	6.1	5.4	5.9
SHORTSTOP (PICK DDF)	5.1	4.8	5.6	5.9	6.3	6.1	5.7	5.7	5.9	6.2	6.0	5.3	5.9
ANTHEM (KWS-DUR)	5.2	4.7	5.7	5.9	6.2	6.0	5.8	5.8	5.8	6.2	6.1	5.5	5.9
BONANZA	5.2	4.8	5.7	6.0	6.2	5.9	5.8	5.8	5.9	6.0	6.0	5.1	5.9
CHIEFTAIN	5.0	4.7	5.5	5.8	6.0	6.0	5.8	5.8	5.9	6.2	6.1	5.3	5.9
THOROUGHbred	5.3	4.9	5.7	5.7	6.1	6.0	5.8	5.8	5.8	6.0	6.1	5.4	5.9
REBEL II	5.2	4.9	5.7	5.7	6.0	5.9	5.9	5.9	5.9	6.2	6.1	5.3	5.9
MAVERICK II (PICK GH6)	5.2	4.7	5.6	5.8	6.1	6.0	5.8	5.8	5.9	6.1	6.1	5.4	5.9
WRANGLER	5.1	4.8	5.7	5.9	6.2	6.0	5.7	5.7	5.8	6.1	6.2	5.3	5.9
EST-5AP	5.1	4.8	5.6	5.8	6.0	5.9	5.8	5.8	5.9	6.1	5.9	5.2	5.9
SILVERADO (PST-5BL)	5.1	4.9	5.5	5.8	6.2	6.1	5.9	5.7	5.8	6.1	6.1	5.4	5.9
WINCHESTER (PST-5F2)	5.1	4.8	5.5	5.8	6.0	5.9	5.7	5.7	5.8	6.1	5.9	5.1	5.9
TRAILBLAZER	5.3	4.8	5.6	5.8	6.2	6.1	5.6	5.6	5.7	6.1	6.1	5.2	5.9
ARRIBA (PST-5DM)	5.1	4.8	5.5	5.9	6.2	6.0	5.8	5.7	5.8	6.0	5.9	5.3	5.8
EST-5EN	5.3	4.9	5.5	5.7	5.9	5.9	5.7	5.8	5.8	6.0	6.0	5.3	5.8
MESA	5.0	5.0	5.7	5.7	5.9	5.9	5.8	5.7	5.9	6.0	5.9	5.2	5.8
TWILIGHT (KWS-BG-6)	4.9	4.4	5.4	5.9	6.2	6.1	5.6	5.5	5.7	6.1	6.0	5.4	5.8
JAGUAR II	5.3	5.1	5.6	5.6	5.9	5.9	5.8	5.7	5.9	6.1	6.0	5.3	5.8
TRADITION (PST-DBC)	5.3	5.1	5.6	5.6	5.8	5.7	5.7	5.7	5.9	6.0	6.0	5.3	5.8
APACHE	5.1	4.9	5.5	5.8	5.9	5.8	5.8	5.7	5.8	6.0	5.8	5.3	5.8
OLYMPIC	5.3	4.9	5.6	5.7	5.9	5.8	5.7	5.6	5.7	5.9	5.9	5.3	5.8
SUNDANCE	5.1	4.8	5.6	5.7	6.0	5.8	5.6	5.7	5.7	5.9	5.9	5.1	5.8
ERAHMA (LEGEND)	5.0	4.8	5.6	5.8	5.9	5.8	5.6	5.6	5.7	6.0	6.0	5.5	5.8
BARNONE (BAR FA 7851)	5.4	5.0	5.6	5.6	5.9	5.8	5.6	5.6	5.7	5.9	5.9	5.2	5.8
TAURUS	5.1	4.8	5.6	5.7	5.9	5.7	5.5	5.6	5.7	6.0	5.9	5.2	5.7
TITAN	5.0	4.7	5.6	5.7	5.9	5.8	5.7	5.7	5.6	5.7	5.7	5.0	5.7
CIMMARON	5.1	4.8	5.5	5.6	5.8	5.8	5.6	5.7	5.6	5.8	5.8	5.0	5.7

TABLE 2. (continued)

MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS FOR
EACH MONTH GROWN AT FORTY-TWO LOCATIONS IN THE UNITED STATES
1988-91 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS												MEAN
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
JB-2	5.0	4.8	5.6	5.8	5.9	5.7	5.6	5.5	5.5	5.8	6.0	5.4	5.7
ARID	5.2	5.0	5.5	5.4	5.6	5.7	5.7	5.7	5.8	5.9	5.9	5.1	5.7
JAGUAR	5.4	5.0	5.4	5.5	5.8	5.8	5.7	5.6	5.6	5.8	5.8	5.2	5.7
FINELAWN 5GL	5.3	5.1	5.5	5.6	5.8	5.7	5.5	5.4	5.5	5.7	5.7	5.1	5.7
MURIETTA (PST-5D7)	4.8	4.4	5.3	5.4	6.1	5.8	5.5	5.4	5.5	5.9	5.8	5.0	5.6
REBEL	5.2	5.0	5.3	5.3	5.6	5.6	5.5	5.6	5.7	5.8	5.9	5.2	5.6
CAREFREE	5.1	4.7	5.5	5.6	5.8	5.7	5.4	5.4	5.4	5.7	5.6	5.0	5.6
EMPEROR (PICK SLD)	5.0	4.6	5.4	5.7	5.9	5.7	5.4	5.5	5.6	5.8	5.8	5.3	5.6
TRIDENT	5.4	4.8	5.4	5.3	5.6	5.6	5.5	5.4	5.5	5.7	5.7	5.3	5.6
BEL 86-1	4.6	4.5	5.5	5.6	5.8	5.6	5.4	5.4	5.4	5.7	5.5	4.9	5.6
ADVENTURE	5.4	5.0	5.6	5.4	5.6	5.5	5.4	5.4	5.4	5.6	5.6	5.1	5.5
FALCON	5.1	4.7	5.3	5.3	5.6	5.5	5.4	5.4	5.4	5.4	5.4	5.0	5.5
PACER	4.9	4.7	5.3	5.2	5.4	5.3	5.3	5.3	5.3	5.5	5.4	4.9	5.4
WILLAMETTE	4.9	4.6	5.2	5.2	5.4	5.3	5.1	5.2	5.3	5.4	5.4	5.0	5.3
FINELAWN I	4.9	4.7	5.3	5.2	5.4	5.4	5.2	5.2	5.3	5.4	5.4	4.9	5.3
RICHMOND	5.0	4.7	5.3	5.1	5.4	5.3	5.2	5.2	5.2	5.4	5.3	4.9	5.3
FATIMA	4.8	4.5	5.2	5.1	5.3	5.3	5.2	5.2	5.1	5.2	5.2	4.7	5.2
AQUARA (SYN GA)	4.8	4.7	5.3	5.0	5.3	5.2	5.1	5.1	5.2	5.3	5.1	4.9	5.2
TIP	5.1	4.7	5.2	5.0	5.1	5.2	5.0	5.0	5.1	5.3	5.3	5.0	5.2
KY-31	4.2	4.2	4.6	4.6	4.7	4.7	4.5	4.6	4.4	4.5	4.4	3.9	4.7
LSD VALUE	0.5	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.1

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

TABLE 3.

RANKING OF MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE
CULTIVARS AT FORTY-TWO LOCATIONS IN THE UNITED STATES 1/
1988-91 DATA

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

NAME	AR1	AZ1	CA1	CA2	CA3	DC2	GA1	IA1	ID2	IL1	IL2	IN1	IN2	KS1	KS2	MD1	MI1	MI2	MO3	NE1	NJ1	NJ2
HUBBARD 87	29	8.5	3	10	11.0	28.0	12.0	5.0	4.5	6.0	9.0	1.0	19.0	6.0	3	9.0	3	8.0	4.0	1.0	11.0	1
SHENANDOAH (PE-7E)	4	6.0	6	6	5.0	45.5	20.0	1.0	2.0	2.0	1.0	2.0	2.0	10.0	2	6.0	62	17.0	12.5	5.5	12.0	3
SAFARI (PST-5MW)	65	1.0	17	22	51.0	33.0	22.0	16.0	47.0	18.0	47.0	34.0	42.0	12.5	11	20.0	9	20.0	3.0	9.0	9.0	8
GUARDIAN (PICK 845PN)	3	7.0	4	26	42.0	64.0	6.0	11.5	58.0	13.0	25.0	7.0	3.0	10.0	21	7.0	52	29.0	14.0	2.0	10.0	2
AUSTIN (NORMARC 25)	50	4.0	31	8	30.0	8.0	7.0	7.0	3.0	1.0	.	4.0	.	22.5	23	29.0	63	2.0	21.5	14.0	19.0	21
COCHISE (PICK 127)	10	28.0	42	40	59.0	18.5	4.0	29.5	44.5	6.0	7.0	19.0	21.0	10.0	38	57.0	5	7.0	7.0	30.0	5.0	9
AZTEC	28	20.0	9	7	41.0	59.0	29.0	60.0	40.0	18.0	5.0	37.0	52.0	3.0	20	8.0	54	51.0	8.0	33.0	3.0	11
PE-7	22	10.5	16	17	7.0	53.0	2.0	17.0	13.5	9.0	54.0	3.0	14.0	14.0	1	10.0	21	22.5	5.0	5.5	14.0	10
MONARCH	11	45.5	7	9	45.0	54.5	25.0	39.0	25.0	30.0	6.0	14.0	34.0	25.0	4	38.0	50	41.0	15.5	25.5	1.0	15
AMIGO (PST-5HF)	13	13.5	13	18	36.0	47.5	27.0	20.5	15.5	6.0	59.0	23.0	15.0	16.0	5	26.0	22	10.0	29.0	22.0	16.0	18
CROSSFIRE (PICK TF9)	1	49.0	11	5	39.5	33.0	1.0	22.0	27.5	21.5	11.0	25.0	48.0	4.5	6	14.0	13	60.0	9.0	46.0	4.0	7
AVANTI (PICK DM)	57	16.0	12	1	21.5	51.0	16.0	28.0	13.5	37.5	19.5	48.5	45.0	2.0	33	21.5	51	44.5	11.0	3.0	7.0	13
VEGAS (NORMARC 99)	2	47.0	36	27	39.5	51.0	39.5	3.0	59.0	43.5	2.5	54.0	16.5	7.0	7	56.0	65	3.0	6.0	32.0	2.0	5
TRIBUTE	17	3.0	45	20	4.0	33.0	3.0	2.0	35.0	40.5	10.0	33.0	1.0	28.0	10	17.0	35	4.5	34.0	14.0	17.0	25
PHOENIX (NORMARC 77)	49	25.0	18	37	35.0	14.0	18.0	8.0	22.5	3.0	13.0	9.0	43.0	33.0	14	4.0	28	6.0	15.5	12.0	32.0	23
THOROUGHBRED	18	5.0	28	43	13.0	1.0	26.0	29.5	9.0	21.5	57.5	8.0	36.0	40.5	30	42.0	10	42.0	40.0	5.5	34.0	26
BEL 86-2	20	26.0	2	28	38.0	63.0	11.0	13.0	37.0	49.5	15.5	10.5	18.0	18.0	25	1.0	56	24.0	27.0	8.0	25.0	37
ELDORADO (PST-5D1)	44	28.0	27	32	23.0	14.0	35.0	20.5	12.0	34.5	30.0	52.0	33.0	12.5	34	30.0	32	17.0	12.5	25.5	8.0	6
PST-5AG	32	31.0	22	3	33.0	39.5	55.0	52.0	26.0	12.0	31.0	20.5	12.0	30.0	36	16.0	6	58.5	23.0	17.0	37.0	48
SHORTSTOP (PICK DDF)	16	48.0	20	4	52.0	60.0	50.0	32.0	50.0	45.5	27.0	47.0	4.0	4.5	12	50.0	2	12.5	32.0	22.0	15.0	16
OLYMPIC II (PST-5OL)	5	21.0	14	13	15.0	45.5	15.0	47.0	61.0	47.5	32.0	22.0	49.5	33.0	9	21.5	14	44.5	39.0	58.5	28.0	34
REBEL II	19	19.0	24	12	8.0	5.5	19.0	34.0	42.0	25.0	36.5	15.0	27.0	46.5	32	5.0	20	11.0	45.0	41.0	31.0	40
BONANZA	27	39.0	21	41	26.0	10.0	31.0	36.0	36.0	6.0	38.5	6.0	7.0	46.5	27	25.0	12	37.0	17.0	30.0	21.0	31
PST-5AP	30	13.5	51	14	54.0	42.5	46.0	6.0	43.0	18.0	2.5	44.0	13.0	28.0	16	23.0	42	15.0	25.5	17.0	36.0	29
WRANGLER	15	53.0	10	44	46.0	12.0	49.0	48.0	19.0	14.5	8.0	5.0	16.5	37.5	48	15.0	15	22.5	37.5	27.5	35.0	30
WINCHESTER (PST-5F2)	51	13.5	39	54	49.0	30.5	24.0	24.0	30.0	40.5	21.0	43.0	30.5	35.0	15	28.0	34	17.0	19.5	35.0	33.0	19
MAVERICK II (PICK GH6)	36	37.0	19	16	43.0	51.0	23.0	44.0	60.0	30.0	17.0	26.0	64.0	17.0	17	60.0	27	57.0	41.5	22.0	20.0	14
CHIEFTAIN	52	24.0	35	24	25.0	49.0	41.0	43.0	27.5	25.0	34.0	16.0	46.0	25.0	42	2.0	30	20.0	24.0	35.0	29.0	24
MESA	21	17.5	43	39	50.0	4.0	9.0	4.0	33.0	6.0	33.0	38.0	6.0	37.5	18	19.0	23	14.0	36.0	43.5	38.0	33
ANTHEM (KWS-DUR)	35	28.0	26	29	29.0	58.0	17.0	10.0	1.0	11.0	43.0	40.0	47.0	19.5	45	62.0	29	9.0	2.0	60.0	13.0	4
PST-5EN	12	13.5	.	46	32.0	21.0	36.0	15.0	15.5	34.5	55.0	42.0	9.0	37.5	47	12.0	40	20.0	31.0	41.0	40.0	42
TRAILBLAZER	63	41.0	15	25	12.0	42.5	63.0	51.0	53.5	30.0	44.0	32.0	51.0	8.0	26	61.0	38	12.5	10.0	49.0	18.0	20
ARRIBA (PST-5DM)	33	62.0	5	15	37.0	61.5	32.5	26.0	48.0	37.5	22.0	36.0	30.5	33.0	52	18.0	61	39.0	37.5	10.5	24.0	17
SILVERADO (PST-5BL)	40	35.0	8	33	24.0	57.0	30.0	46.0	38.0	52.0	41.0	56.0	40.5	15.0	22	49.0	48	32.5	19.5	38.0	6.0	12
OLYMPIC	24	17.5	53	36	14.0	16.5	47.0	58.0	52.0	18.0	42.0	12.0	58.0	40.5	24	33.0	8	26.0	50.0	22.0	42.0	46
JAGUAR II	41	44.0	34	48	1.0	42.5	14.0	19.0	6.0	30.0	49.0	18.0	56.0	49.5	39	3.0	1	29.0	43.5	46.0	45.0	41
TRADITION (PST-DBC)	7	32.0	50	50	9.0	35.5	13.0	11.5	20.0	34.5	53.0	28.0	8.0	44.0	19	32.0	31	56.0	41.5	54.5	44.0	32
TWILIGHT (KWS-BG-6)	6	2.0	37	53	47.0	61.5	60.0	33.0	7.0	62.0	.	57.0	40.5	1.0	46	58.0	41	48.0	1.0	51.0	22.0	22
SUNDANCE	48	30.0	54	19	20.0	30.5	42.0	14.0	51.0	25.0	24.0	51.0	26.0	28.0	29	54.5	19	48.0	21.5	27.5	27.0	36
APACHE	9	33.0	44	55	28.0	42.5	39.5	9.0	49.0	14.5	18.0	24.0	37.5	21.0	28	40.0	43	58.5	34.0	10.5	43.0	47
TITAN	45	36.0	55	51	17.0	11.0	8.0	31.0	4.5	30.0	26.0	27.0	25.0	52.5	37	11.0	26	4.5	52.5	49.0	48.0	45
JB-2	46	38.0	32	38	10.0	18.5	37.0	50.0	10.0	45.5	14.0	31.0	23.0	42.5	58	41.0	33	46.0	48.0	14.0	50.0	44
BARNONE (BAR FA 7851)	47	34.0	25	34	21.5	8.0	5.0	23.0	24.0	40.5	.	41.0	11.0	37.5	31	51.0	59	52.0	29.0	22.0	49.0	43
TAURUS	26	10.5	30	30	31.0	56.0	44.0	35.0	44.5	43.5	28.0	50.0	32.0	49.5	43	13.0	36	48.0	43.5	30.0	30.0	51
BRAHMA (LEGEND)	14	61.0	23	31	55.0	54.5	56.0	42.0	46.0	55.5	29.0	10.5	24.0	31.0	13	31.0	4	39.0	29.0	5.5	26.0	28

TABLE 3. (continued)

RANKING OF MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE
CULTIVARS AT FORTY-TWO LOCATIONS IN THE UNITED STATES
1988-91 DATA

QUALITY RANKINGS; 1=HIGHEST MEAN; STATE LOCATIONS REPORTING

NAME	AR1	AZ1	CA1	CA2	CA3	DC2	GA1	IA1	ID2	IL1	IL2	IN1	IN2	KS1	KS2	MD1	MI1	MO1	MO3	NE1	NJ1	NJ2
CIMMARON	39	23.0	33	52	3.0	37.5	52.0	25.0	18.0	25.0	40.0	48.5	59.0	42.5	8	24.0	7	54.0	34.0	54.5	46.0	38
ARID	8	41.0	48	23	27.0	24.5	21.0	40.0	17.0	52.0	15.5	39.0	22.0	54.0	54	39.0	24	34.5	48.0	43.5	51.0	53
FINELAWN 5GL	43	63.0	47	45	34.0	2.5	34.0	27.0	34.0	55.5	61.0	17.0	5.0	56.0	51	54.5	55	31.0	56.0	38.0	55.0	52
JAGUAR	59	51.0	49	21	18.0	24.5	10.0	37.0	53.5	10.0	51.0	13.0	35.0	46.5	59	35.0	57	1.0	54.0	38.0	52.0	54
REBEL	23	58.0	40	35	19.0	5.5	53.0	53.0	22.5	52.0	60.0	45.0	29.0	55.0	53	36.0	25	27.0	52.5	49.0	53.0	55
CAREFREE	60	8.5	46	42	6.0	24.5	64.0	41.0	8.0	40.5	19.5	35.0	20.0	22.5	40	53.0	17	36.0	58.0	19.0	47.0	50
MURIELTA (PST-5D7)	64	59.0	1	2	44.0	47.5	54.0	45.0	63.0	47.5	45.0	29.0	60.0	25.0	41	47.0	44	39.0	25.5	17.0	39.0	35
TRIDENT	55	22.0	52	58	16.0	21.0	51.0	18.0	29.0	34.5	23.0	46.0	63.0	52.5	49	27.0	45	32.5	46.0	46.0	54.0	39
BEL 86-1	62	41.0	41	47	53.0	28.0	59.0	55.0	11.0	18.0	36.5	59.0	10.0	51.0	35	37.0	58	54.0	51.0	41.0	41.0	49
ADVENTURE	53	43.0	38	49	2.0	14.0	38.0	61.0	31.5	25.0	12.0	20.5	44.0	46.5	55	45.0	60	64.0	56.0	35.0	56.0	56
EMPEROR (PICK SLD)	56	50.0	29	11	48.0	65.0	45.0	62.0	65.0	63.5	4.0	55.0	39.0	19.5	44	43.0	16	62.0	18.0	58.5	23.0	27
FALCON	58	56.0	58	57	60.0	37.5	28.0	38.0	62.0	49.5	38.5	61.0	37.5	58.0	62	34.0	11	63.0	56.0	54.5	58.0	58
PACER	31	64.0	61	60	58.0	16.5	32.5	49.0	41.0	58.0	35.0	60.0	49.5	57.0	61	48.0	53	54.0	48.0	61.0	57.0	60
FINELAWN I	25	60.0	56	64	63.0	8.0	48.0	59.0	21.0	55.5	62.0	53.0	55.0	63.0	60	46.0	37	43.0	62.0	54.5	60.5	57
WILLAMETTE	34	45.5	57	62	56.0	24.5	61.0	54.0	55.5	59.5	46.0	30.0	57.0	62.0	50	44.0	18	29.0	59.0	65.0	62.0	59
RICHMOND	54	54.5	60	61	57.0	35.5	58.0	64.0	39.0	55.5	50.0	62.0	28.0	61.0	57	63.0	46	50.0	61.0	54.5	59.0	62
AQUARA (SYN GA)	38	57.0	63	56	62.0	28.0	57.0	56.0	55.5	63.5	57.5	58.0	53.0	59.0	56	64.0	49	61.0	60.0	62.0	60.5	61
FATIMA	42	52.0	62	63	64.0	21.0	43.0	57.0	31.5	59.5	48.0	64.0	54.0	64.0	63	52.0	47	25.0	63.0	54.5	63.0	63
TIP	37	54.5	59	59	61.0	39.5	62.0	63.0	57.0	61.0	56.0	63.0	62.0	60.0	64	59.0	39	34.5	64.0	63.0	64.0	64
KY-31	61	65.0	64	65	65.0	2.5	65.0	65.0	64.0	65.0	52.0	65.0	61.0	65.0	65	65.0	64	65.0	65.0	64.0	65.0	65

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 3. (continued)

RANKING OF MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE
CULTIVARS AT FORTY-TWO LOCATIONS IN THE UNITED STATES
1988-91 DATA

QUALITY RANKINGS; 1=HIGHEST MEAN; STATE LOCATIONS REPORTING

NAME	NJ3	NY1	NY2	OH2	OK1	OR1	OR2	RI1	TX1	TX2	UB1	UB2	VA1	VA2	VA3	VA4	VA6	WA4	WA6	MEAN
HUBBARD 87	3.0	1.0	1.0	6.0	14.0	3	1	10	5.0	4.0	2	13	2.0	1.0	2	3	23.0	3.0	53.5	1
SHENANDOAH (PE-7E)	8.0	7.0	12.0	2.0	2.0	7	7	28	43.0	10.5	4	5	1.0	10.5	3	2	5.0	23.0	34.5	2
SAFARI (PST-5MW)	2.0	3.0	7.0	5.0	14.0	8	21	6	39.0	2.0	13	19	32.5	10.5	17	26	55.0	1.5	3.5	3
GUARDIAN (PICK 845PN)	4.0	12.0	11.0	29.0	38.5	5	3	38	42.0	1.0	3	10	7.0	24.0	10	5	35.5	1.5	34.5	4
AUSTIN (NORMARC 25)	27.0	4.0	6.0	39.0	38.5	35	28	9	21.0	20.0	17	26	6.0	51.0	19	36	12.0	.	19.0	5
COCHISE (PICK 127)	9.0	5.0	3.0	45.0	51.0	12	24	25	27.0	40.0	6	3	20.0	46.0	5	12	50.0	51.5	10.5	6
AZTEC	1.0	23.5	18.0	34.0	50.0	11	48	27	3.0	34.0	5	7	15.0	31.0	11	13	49.0	20.5	2.0	7
PE-7	11.0	10.0	13.0	7.0	8.0	20	29	29	16.0	46.0	1	1	8.0	32.0	20	32	39.0	11.5	59.0	8
MONARCH	5.0	15.0	37.0	41.0	42.5	10	25	3	51.0	29.0	11	9	12.0	49.0	4	17	45.0	56.5	1.0	9
AMIGO (PST-5HF)	16.0	2.0	5.0	13.0	64.0	1	13	15	4.0	24.5	14	18	13.0	9.0	24	9	48.0	34.0	19.0	10
CROSSFIRE (PICK TF9)	7.0	21.0	2.0	41.0	1.0	14	53	5	34.0	10.5	9	12	16.0	17.0	28	10	60.0	51.5	53.5	11
AVANTI (PICK DM)	12.0	36.0	9.0	49.0	31.5	6	15	26	12.0	17.0	16	4	18.0	13.5	18	19	32.0	11.5	27.5	12
VEGAS (NORMARC 99)	6.0	16.0	33.0	57.0	46.5	9	32	36	17.5	5.0	8	2	39.0	3.0	16	4	34.0	24.0	42.0	13
TRIBUTE	29.0	37.0	41.0	25.0	6.0	22	33	11	9.0	36.5	19	15	11.0	7.0	12	11	24.5	45.0	53.5	14
PHOENIX (NORMARC 77)	30.0	17.0	8.0	15.0	28.5	26	8	13	30.0	6.0	31	22	5.0	6.0	9	31	16.0	29.5	63.0	15
THOROUGHbred	19.0	31.0	48.0	18.0	22.5	38	12	7	65.0	23.0	38	33	18.0	36.0	32	27	21.0	6.5	10.5	16
BEL 86-2	22.0	35.0	25.5	9.0	52.0	28	5	16	35.0	39.0	20	11	3.0	8.0	1	1	33.0	9.0	53.5	17
ELDORADO (PST-5D1)	20.0	38.0	25.5	50.5	44.5	16	35	47	50.0	12.0	12	8	45.0	2.0	15	37	10.0	59.5	42.0	18
PST-5AG	17.0	28.0	30.0	29.0	4.0	4	6	4	19.0	8.0	41	16	10.0	28.0	33	7	61.0	15.0	19.0	19
SHORTSTOP (PICK DDF)	10.0	40.0	55.0	56.0	55.0	13	31	54	56.0	33.0	7	6	21.0	23.0	8	6	54.0	20.5	5.5	20
OLYMPIC II (PST-5OL)	25.0	13.0	14.0	23.5	10.0	21	55	23	7.0	3.0	33	42	37.0	22.0	26	21	4.0	15.0	19.0	21
REBEL II	13.0	26.0	28.5	11.0	25.5	27	42	1	49.0	28.0	36	36	9.0	13.5	34	20	18.0	42.5	42.0	22
BONANZA	39.0	14.0	28.5	1.0	14.0	24	54	19	10.0	36.5	18	20	26.0	52.5	23	14	20.0	42.5	48.0	23
PST-5AP	37.5	29.0	36.0	52.0	3.0	42	36	30	20.0	52.0	29	29	25.0	4.0	36	28	37.0	11.5	19.0	24
WRANGLER	21.0	9.0	23.0	16.0	16.5	19	14	31	38.0	44.0	22	39	22.0	25.0	41	18	11.0	62.5	34.5	25
WINCHESTER (PST-5F2)	33.0	52.0	39.0	26.5	38.5	50	44	12	25.0	51.0	26	25	31.0	13.5	14	30	2.0	34.0	3.5	26
MAVERICK II (PICK GH6)	14.0	18.0	16.0	58.0	22.5	29	63	21	11.0	31.0	21	14	41.0	18.0	29	8	3.0	4.5	48.0	27
CHIEFTAIN	15.0	11.0	4.0	3.0	19.0	18	20	2	31.0	54.0	27	34	29.0	13.5	13	24	14.0	29.5	59.0	28
MESA	54.0	42.0	50.0	21.0	28.5	36	41	39	58.0	19.0	44	27	23.0	55.0	31	23	17.0	54.0	10.5	29
ANTHEM (KWS-DUR)	18.0	56.0	43.0	46.0	58.5	17	30	34	53.0	47.0	15	24	32.5	44.0	22	16	62.0	4.5	62.0	30
PST-5EN	40.0	20.0	16.0	41.0	58.5	37	4	33	22.0	32.0	37	32	18.0	20.0	30	22	1.0	25.5	48.0	31
TRAILBLAZER	28.0	19.0	10.0	4.0	5.0	15	2	45	1.0	26.0	28	23	51.0	60.0	50	47	31.0	17.5	42.0	32
ARRIBA (PST-5DM)	24.0	22.0	21.0	37.5	16.5	25	9	14	32.0	41.0	25	50	14.0	33.5	25	15	47.0	62.5	10.5	33
SILVERADO (PST-5BL)	31.0	49.0	42.0	53.5	12.0	2	43	22	44.0	60.0	10	28	24.0	36.0	49	33	64.0	42.5	34.5	34
OLYMPIC	47.0	8.0	16.0	31.0	41.0	40	18	24	47.0	27.0	47	48	44.0	42.0	6	50	30.0	11.5	27.5	35
JAGUAR II	46.0	27.0	19.0	47.0	7.0	23	11	17	57.0	45.0	42	31	4.0	59.0	52	39	41.5	42.5	27.5	36
TRADITION (PST-DBC)	37.5	39.0	27.0	21.0	19.0	45	19	46	36.0	63.0	35	49	30.0	26.5	46	25	56.0	29.5	10.5	37
TWILIGHT (KWS-BG-6)	32.0	63.0	52.0	44.0	63.0	31	64	50	2.0	7.0	32	35	54.5	56.0	45	48	59.0	6.5	19.0	38
SUNDANCE	23.0	57.0	60.0	34.0	19.0	48	50	37	45.0	55.0	43	41	42.0	40.5	7	35	24.5	38.0	10.5	39
APACHE	35.0	34.0	35.0	17.0	33.0	39	16	32	23.5	62.0	48	21	35.0	5.0	38	49	8.0	8.0	64.0	40
TITAN	42.0	46.0	51.0	34.0	9.0	54	51	40	59.0	38.0	52	47	34.0	16.0	21	29	7.0	47.5	42.0	41
JB-2	44.0	6.0	20.0	26.5	44.5	43	22	18	8.0	43.0	53	55	28.0	48.0	39	54	15.0	58.0	10.5	42
BARNONE (BAR FA 7851)	36.0	48.0	38.0	21.0	61.0	30	49	49	13.0	21.5	23	38	38.0	39.0	56	44	51.0	47.5	53.5	43
TAURUS	26.0	30.0	53.0	34.0	22.5	47	46	58	17.5	13.0	30	52	46.5	21.0	57	43	6.0	20.5	34.5	44
BRAHMA (LEGEND)	41.0	43.0	34.0	48.0	46.5	32	47	56	29.0	18.0	39	37	56.0	30.0	37	59	53.0	47.5	42.0	45

TABLE 3. (continued)

RANKING OF MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE
CULTIVARS AT FORTY-TWO LOCATIONS IN THE UNITED STATES
1988-91 DATA

QUALITY RANKINGS; 1=HIGHEST MEAN; STATE LOCATIONS REPORTING

NAME	NJ3	NY1	NY2	OH2	OK1	OR1	OR2	RI1	TX1	TX2	UB1	UB2	VA1	VA2	VA3	VA4	VA6	WA4	WA6	MEAN
CIMMARON	51.0	25.0	31.0	11.0	55.0	49	65	44	14.5	14.0	24	30	46.5	26.5	35	60	41.5	59.5	19.0	46
ARID	52.0	32.0	22.0	63.0	11.0	52	38	35	14.5	49.0	55	51	52.0	29.0	42	38	28.0	38.0	27.5	47
FINELAWN 5GL	48.0	50.0	40.0	8.0	35.0	44	34	53	23.5	56.0	49	46	40.0	19.0	27	41	9.0	25.5	27.5	48
JAGUAR	53.0	33.0	47.0	14.0	28.5	46	10	8	26.0	15.5	51	53	27.0	40.5	48	42	57.0	38.0	34.5	49
REBEL	55.0	23.5	32.0	50.5	28.5	56	17	20	41.0	50.0	54	54	36.0	36.0	53	51	29.0	29.5	19.0	50
CAREFREE	49.0	53.0	46.0	55.0	48.5	51	26	52	64.0	48.0	50	40	54.5	61.0	54	46	19.0	15.0	10.5	51
MURIETTA (PST-5D7)	45.0	51.0	44.0	34.0	48.5	33	40	43	54.5	65.0	34	43	59.0	64.5	61	34	40.0	20.5	42.0	52
TRIDENT	62.0	44.0	54.0	53.5	58.5	53	27	59	33.0	21.5	45	45	57.0	38.0	60	53	22.0	29.5	42.0	53
BEL 86-1	34.0	59.0	57.0	11.0	35.0	55	56	55	62.0	58.0	46	44	43.0	44.0	40	45	63.0	55.0	42.0	54
ADVENTURE	50.0	41.0	24.0	19.0	65.0	41	23	41	6.0	57.0	56	57	53.0	47.0	47	58	46.0	51.5	53.5	55
EMPEROR (PICK SLD)	43.0	62.0	62.0	64.0	62.0	34	62	51	46.0	35.0	40	17	48.0	63.0	43	40	65.0	56.5	27.5	56
FALCON	57.0	45.0	45.0	23.5	25.5	57	45	48	28.0	9.0	60	58	49.0	33.5	44	52	26.0	47.5	5.5	57
PACER	56.0	54.0	59.0	60.0	22.5	64	52	61	40.0	30.0	57	61	63.0	50.0	63	56	27.0	29.5	19.0	58
FINELAWN I	59.0	60.0	61.0	43.0	31.5	59	37	42	52.0	61.0	59	60	60.0	44.0	59	55	13.0	61.0	53.5	59
WILLAMETTE	64.0	47.0	49.0	29.0	55.0	60	60	62	37.0	53.0	61	59	58.0	62.0	58	63	35.5	17.5	61.0	60
RICHMOND	58.0	55.0	56.0	65.0	53.0	58	57	57	63.0	15.5	58	62	61.0	64.5	64	57	43.0	38.0	59.0	61
AQUARA (SYN GA)	60.0	61.0	63.0	37.5	58.5	63	58	65	54.5	42.0	64	56	62.0	57.0	55	62	52.0	51.5	27.5	62
FATIMA	61.0	58.0	58.0	62.0	35.0	62	59	63	60.0	59.0	62	64	50.0	58.0	51	61	38.0	34.0	65.0	63
TIP	63.0	64.0	64.0	61.0	38.5	61	39	60	48.0	24.5	63	63	64.0	54.0	62	64	44.0	38.0	27.5	64
KY-31	65.0	65.0	65.0	59.0	42.5	65	61	64	61.0	64.0	65	65	65.0	52.5	65	65	58.0	64.0	53.5	65

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.

MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS FOR
EACH YEAR GROWN IN THE UNITED STATES
1988-91 DATA

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

NAME	1988 MEAN	1989 MEAN	1990 MEAN	1991 MEAN	1988-91 MEAN
HUBBARD 87	6.3	6.4	6.3	6.2	6.3
SHENANDOAH (PE-7E)	6.2	6.3	6.2	6.3	6.3
GUARDIAN (PICK 845PN)	6.0	6.3	6.2	6.1	6.2
SAFARI (PST-5MW)	6.1	6.2	6.1	6.0	6.1
PE-7	6.1	6.2	6.1	6.0	6.1
CROSSFIRE (PICK TF9)	6.0	6.2	6.1	6.1	6.1
AMIGO (PST-5HF)	6.1	6.1	6.0	6.0	6.1
COCHISE (PICK 127)	6.0	6.1	6.0	6.1	6.1
AUSTIN (NORMARC 25)	6.1	6.1	6.0	6.0	6.1
AZTEC	6.1	6.1	6.1	5.9	6.0
AVANTI (PICK DM)	6.1	6.1	6.0	5.9	6.0
VEGAS (NORMARC 99)	5.8	6.1	6.1	6.1	6.0
MONARCH	6.0	6.1	6.0	6.0	6.0
TRIBUTE	5.9	6.1	6.0	6.0	6.0
BEL 86-2	5.7	6.1	6.0	6.0	6.0
PHOENIX (NORMARC 77)	5.9	6.0	6.0	6.0	6.0
PST-5AG	5.8	6.0	6.0	5.8	5.9
ELDORADO (PST-5D1)	5.8	6.0	6.0	5.9	5.9
OLYMPIC II (PST-5OL)	5.9	6.0	5.9	5.9	5.9
SHORTSTOP (PICK DDF)	5.8	5.9	5.9	6.0	5.9
ANTHEM (KWS-DUR)	5.7	5.9	6.0	6.0	5.9
BONANZA	6.0	6.0	5.8	5.8	5.9
CHIEFTAIN	5.9	6.0	5.9	5.8	5.9
THOROUGHbred	5.9	6.0	5.9	5.8	5.9
REBEL II	5.9	6.0	5.9	5.8	5.9
MAVERICK II (PICK GH6)	5.9	6.0	5.9	5.8	5.9
WRANGLER	5.8	6.0	5.9	5.8	5.9
PST-5AP	5.9	6.0	5.8	5.8	5.9
SILVERADO (PST-5BL)	5.7	5.9	6.0	5.9	5.9
WINCHESTER (PST-5F2)	5.8	5.8	5.9	5.9	5.9
TRAILBLAZER	5.9	5.9	5.9	5.8	5.9
ARRIBA (PST-5DM)	5.8	6.0	5.8	5.8	5.8
PST-5EN	5.8	5.9	5.8	5.7	5.8
MESA	5.9	5.9	5.8	5.8	5.8
TWILIGHT (KWS-BG-6)	5.9	5.8	5.7	5.9	5.8
JAGUAR II	5.8	5.9	5.8	5.8	5.8
TRADITION (PST-DBC)	5.8	5.8	5.7	5.8	5.8
APACHE	5.8	6.0	5.7	5.7	5.8
OLYMPIC	5.9	5.8	5.7	5.6	5.8
SUNDANCE	5.7	5.8	5.7	5.8	5.8
BRAHMA (LEGEND)	5.6	5.9	5.7	5.7	5.8
BARNONE (BAR FA 7851)	5.7	5.8	5.7	5.7	5.8
TAURUS	5.7	5.8	5.7	5.7	5.7
TITAN	5.8	5.8	5.7	5.7	5.7
CIMMARON	5.9	5.8	5.6	5.6	5.7

TABLE 4. (continued) MEAN TURFGRASS QUALITY RATINGS OF TALL FESCUE CULTIVARS FOR EACH YEAR GROWN IN THE UNITED STATES 1988-91 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

NAME	1988 MEAN	1989 MEAN	1990 MEAN	1991 MEAN	1988-91 MEAN
JB-2	5.8	5.8	5.7	5.5	5.7
ARID	5.7	5.7	5.7	5.6	5.7
JAGUAR	5.7	5.9	5.6	5.5	5.7
FINELAWN 5GL	5.8	5.6	5.6	5.6	5.7
MURIETTA (PST-5D7)	5.6	5.6	5.7	5.7	5.6
REBEL	5.6	5.8	5.6	5.4	5.6
CAREFREE	5.7	5.6	5.6	5.5	5.6
EMPEROR (PICK SLD)	5.4	5.6	5.6	5.8	5.6
TRIDENT	5.6	5.7	5.5	5.5	5.6
BEL 86-1	5.7	5.6	5.4	5.5	5.6
ADVENTURE	5.7	5.6	5.4	5.4	5.5
FALCON	5.5	5.6	5.3	5.3	5.5
PACER	5.5	5.4	5.3	5.2	5.4
WILLAMETTE	5.4	5.3	5.3	5.3	5.3
FINELAWN I	5.4	5.4	5.2	5.2	5.3
RICHMOND	5.3	5.4	5.2	5.1	5.3
FATIMA	5.2	5.3	5.2	5.3	5.2
AQUARA (SYN GA)	5.2	5.2	5.1	5.2	5.2
TIP	5.3	5.2	5.1	5.1	5.2
KY-31	4.9	4.8	4.4	4.5	4.7
LSD VALUE	0.3	0.3	0.3	0.3	0.1

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

TABLE 5. SPRING GREENUP RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

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

NAME	ID2	MO3	NJ3	OK1	VA3	MEAN
PST-5AG	5.3	5.4	6.0	4.0	5.3	5.2
HUBBARD 87	5.0	5.9	6.0	4.0	4.7	5.1
REBEL	5.3	5.2	5.3	4.0	5.3	5.0
PST-5EN	6.3	5.0	5.7	4.0	4.0	5.0
OLYMPIC	5.7	5.2	5.3	4.0	4.7	5.0
MAVERICK II (PICK GH6)	6.0	4.9	5.0	4.0	4.7	4.9
BEL 86-1	5.0	6.0	5.0	4.0	4.3	4.9
CIMMARON	5.3	6.0	4.3	4.0	4.7	4.9
VEGAS (NORMARC 99)	4.3	5.1	5.7	4.0	5.0	4.8
BONANZA	4.0	6.0	5.0	4.0	5.0	4.8
FALCON	5.3	5.3	4.7	4.0	4.7	4.8
FINELAWN 5GL	4.0	5.7	5.3	4.0	5.0	4.8
ADVENTURE	4.3	5.6	5.0	4.0	5.0	4.8
SUNDANCE	4.0	5.9	5.0	4.0	5.0	4.8
WRANGLER	5.3	5.6	5.0	4.0	4.0	4.8
AVANTI (PICK DM)	4.0	5.8	4.7	4.0	5.3	4.8
PST-5AP	3.7	5.7	5.3	4.0	5.0	4.7
SAFARI (PST-5MW)	4.7	5.7	5.3	4.0	4.0	4.7
ANTHEM (KWS-DUR)	6.0	5.2	5.0	4.0	3.3	4.7
THOROUGHbred	3.7	5.4	5.7	4.0	4.7	4.7
COCHISE (PICK 127)	3.0	6.0	5.7	4.0	4.7	4.7
KY-31	4.3	5.0	5.0	4.3	4.7	4.7
TITAN	5.0	5.6	5.0	4.0	3.7	4.6
TRADITION (PST-DBC)	4.3	5.6	4.7	4.0	4.7	4.6
AQUARA (SYN GA)	3.7	4.9	6.3	4.3	4.0	4.6
BEL 86-2	4.0	4.9	6.0	4.0	4.3	4.6
CROSSFIRE (PICK TF9)	4.0	5.9	5.0	4.0	4.3	4.6
TAURUS	4.3	4.9	5.3	4.0	4.7	4.6
ARID	3.7	5.1	5.7	4.0	4.7	4.6
AMIGO (PST-5HF)	3.7	5.7	5.3	4.0	4.3	4.6
APACHE	4.3	5.1	5.3	4.0	4.0	4.6
MESA	3.7	5.4	5.0	4.3	4.3	4.6
SHENANDOAH (PE-7E)	3.3	5.4	6.0	4.0	4.0	4.6
GUARDIAN (PICK 845FN)	4.0	5.3	5.0	4.0	4.3	4.5
BARNONE (BAR FA 7851)	3.0	6.2	5.3	4.0	4.0	4.5
CAREFREE	4.7	5.2	5.0	4.0	3.7	4.5
ELDORADO (PST-5D1)	4.3	5.2	5.0	4.0	4.0	4.5
JAGUAR	4.3	4.6	5.3	4.0	4.3	4.5
TRIBUTE	3.7	5.6	5.3	3.7	4.3	4.5
WINCHESTER (PST-5E2)	3.3	5.6	5.3	4.0	4.3	4.5
AUSTIN (NORMARC 25)	3.3	5.4	5.7	4.0	4.0	4.5
PE-7	3.3	5.4	5.0	4.0	4.7	4.5
REBEL II	4.0	5.1	5.0	4.0	4.3	4.5
PHOENIX (NORMARC 77)	4.3	5.3	5.0	4.0	3.7	4.5
JAGUAR II	4.0	5.2	5.0	4.0	4.0	4.4

SPRING GREENUP RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

SPRING GREENUP RATINGS 1-9; 9=COMPLETELY GREEN

NAME	ID2	MO3	NJ3	OK1	VA3	MEAN
OLYMPIC II (PST-5OL)	3.7	5.1	5.0	4.0	4.3	4.4
ARRIBA (PST-5DM)	3.3	5.7	5.0	4.0	4.0	4.4
FATIMA	4.3	5.0	5.0	4.0	3.7	4.4
TRAILBLAZER	4.0	5.0	5.3	4.0	3.7	4.4
AZTEC	3.3	5.4	4.7	4.0	4.3	4.4
BRAHMA (LEGEND)	3.7	5.1	4.3	4.0	4.7	4.4
FINELAWN I	4.3	4.4	5.0	4.0	4.0	4.4
SHORTSTOP (PICK DDF)	3.0	5.8	4.7	4.0	4.3	4.4
PACER	3.7	4.8	4.7	4.0	4.3	4.3
WILLAMETTE	5.3	4.1	4.3	3.7	4.0	4.3
MONARCH	3.7	5.0	5.3	4.0	3.3	4.3
CHIEFTAIN	3.3	4.8	5.0	4.0	4.0	4.2
JB-2	2.7	5.1	5.3	4.0	3.7	4.2
RICHMOND	4.3	4.3	4.3	4.0	3.7	4.1
TRIDENT	4.0	5.0	3.7	4.0	4.0	4.1
MURIETTA (PST-5D7)	4.7	4.9	3.3	4.0	3.7	4.1
EMPEROR (PICK SLD)	3.0	4.9	4.7	4.0	4.0	4.1
TIP	3.7	4.9	4.0	4.0	4.0	4.1
TWILIGHT (KWS-BG-6)	4.7	4.6	4.0	3.7	3.7	4.1
SILVERADO (PST-5BL)	3.0	4.7	3.3	4.0	4.0	3.8
LSD VALUE	2.5	1.2	1.3	0.3	1.3	0.7

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).

TABLE 6.

GENETIC COLOR RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

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

NAME	AR1	AZ1	GA1	ID2	KS2	MD1	MO3	NE1	NJ1	NJ2	NJ3	OH2	OK1	VA3	VA6	WA4	MEAN
TWILIGHT (KWS-BG-6)	8.3	6.7	8.5	8.0	6.3	4.7	7.3	6.5	9.0	8.0	6.6	7.4	7.1	7.7	7.7	8.7	7.4
VEGAS (NORMARC 99)	8.3	7.0	8.7	6.5	7.0	5.0	6.0	6.7	8.3	8.5	6.8	7.3	7.0	7.0	7.7	6.7	7.1
SHORTSTOP (PICK DDF)	7.5	6.7	8.3	6.7	8.0	5.0	6.2	6.3	8.3	7.2	6.8	7.5	7.0	7.7	7.3	7.0	7.1
COCHISE (PICK 127)	7.8	6.7	8.3	6.3	7.7	5.7	5.7	6.0	8.3	8.2	6.3	7.3	6.7	7.3	7.3	6.7	7.0
GUARDIAN (PICK 845PN)	7.5	6.7	8.2	5.0	7.7	5.7	6.0	6.3	8.0	7.7	6.4	7.2	7.2	7.0	7.3	7.3	6.9
AZTEC	7.3	7.0	8.0	6.7	7.7	5.7	6.5	6.2	6.7	7.5	6.1	7.0	7.1	7.3	6.7	6.3	6.9
CROSSFIRE (PICK TF9)	7.8	6.7	8.7	6.5	7.7	6.0	6.0	6.3	7.3	7.3	6.4	7.6	7.1	5.7	6.0	6.3	6.8
SHENANDOAH (PE-7E)	6.9	7.0	7.8	6.2	8.0	6.7	5.5	6.3	7.7	7.0	6.1	7.1	6.1	6.3	7.0	6.7	6.8
AVANTI (PICK DM)	6.9	7.0	8.3	7.5	7.7	5.3	5.8	6.0	7.3	7.3	6.1	7.1	6.6	6.3	6.0	6.7	6.8
ANTHEM (KWS-DUR)	7.5	6.7	8.2	7.2	8.0	4.3	6.5	6.0	7.0	7.0	6.1	7.3	5.6	7.3	6.7	6.7	6.7
SAFARI (PST-5MW)	6.8	7.0	7.8	6.7	8.0	6.0	5.8	6.0	7.3	7.0	5.9	6.8	6.9	6.0	6.7	7.0	6.7
PE-7	6.9	7.0	8.2	5.8	7.7	7.0	6.2	6.2	7.0	7.0	5.8	7.1	6.8	6.3	6.3	6.3	6.7
HUBBARD 87	6.5	7.0	8.0	6.5	7.7	5.7	4.8	6.2	7.3	7.5	6.2	7.4	6.6	6.7	6.3	7.0	6.7
MAVERICK II (PICK GH6)	6.8	7.0	7.7	6.5	8.0	5.0	6.2	6.0	7.3	6.8	6.1	7.6	6.9	6.0	6.3	6.3	6.7
ELDORADO (PST-5D1)	7.1	7.0	8.0	6.8	7.7	5.3	6.7	6.0	6.3	6.8	5.7	7.3	6.3	6.7	7.0	5.3	6.6
SILVERADO (PST-5BL)	7.5	7.0	8.7	6.8	6.7	4.7	6.0	6.2	7.3	6.0	6.3	7.2	6.6	6.7	6.0	5.3	6.6
MONARCH	6.9	7.0	8.2	6.7	7.0	5.7	5.5	6.2	7.0	7.2	5.8	6.9	6.6	6.7	6.3	5.3	6.6
AMIGO (PST-5HF)	6.3	7.0	8.2	7.0	8.0	5.7	5.8	5.8	7.0	7.2	5.9	7.1	5.8	6.0	6.3	5.7	6.5
BEL 86-1	5.9	6.7	7.8	7.5	8.0	5.7	5.2	6.0	7.0	6.5	5.6	6.9	6.7	6.0	6.3	6.7	6.5
TRAILBLAZER	6.6	7.0	8.3	6.3	8.0	5.0	5.8	5.7	7.0	6.3	5.9	7.0	6.6	6.7	5.7	5.3	6.4
EMPEROR (PICK SLD)	7.3	6.3	8.2	6.2	8.0	4.7	5.3	5.5	7.3	6.3	5.7	7.4	6.7	6.0	6.3	6.0	6.4
AUSTIN (NORMARC 25)	6.3	6.7	8.2	6.8	7.3	6.3	4.7	6.0	6.0	6.3	5.0	7.0	7.1	6.0	5.7	.	6.4
MURIETTA (PST-5D7)	6.9	6.7	8.2	6.2	6.3	4.7	5.7	6.0	7.0	6.2	5.6	7.3	6.1	6.3	7.0	5.7	6.4
BONANZA	6.4	6.7	7.7	6.0	7.7	6.3	5.2	6.0	6.7	7.2	5.8	6.8	6.2	6.0	5.3	5.7	6.3
TAURUS	6.9	7.0	7.7	5.3	7.3	7.0	4.8	5.7	7.0	6.3	5.2	6.9	5.9	5.7	6.0	6.7	6.3
ARRIBA (PST-5DM)	6.7	7.0	7.7	5.8	7.7	4.3	5.3	5.8	7.0	6.3	6.2	6.8	5.7	6.7	6.0	6.0	6.3
PHOENIX (NORMARC 77)	6.2	6.7	8.0	5.7	8.0	6.7	6.0	6.0	6.3	6.2	4.7	6.8	5.9	6.3	5.7	6.0	6.3
PST-5AG	5.9	7.0	7.8	6.8	7.7	6.0	5.2	5.7	6.0	5.5	5.2	6.8	6.1	5.3	5.7	5.7	6.1
WINCHESTER (PST-5F2)	5.8	7.0	7.8	4.5	8.0	6.3	5.8	5.5	6.0	5.8	5.3	7.0	6.4	5.3	5.7	5.7	6.1
TRIBUTE	5.9	6.7	8.0	6.0	8.0	5.0	5.2	6.0	6.0	5.5	5.8	7.1	5.9	5.7	5.3	6.0	6.1
OLYMPIC II (PST-5OL)	6.0	7.0	7.8	5.7	8.0	6.3	5.5	6.0	5.0	5.5	5.1	6.8	6.2	5.3	6.0	5.0	6.1
SUNDANCE	6.3	6.7	7.7	5.3	7.3	5.0	5.0	6.2	7.0	6.2	5.0	6.8	6.0	5.7	5.3	6.0	6.1
MESA	6.0	6.7	7.5	5.8	7.7	5.3	5.7	6.2	5.0	6.0	4.6	6.8	6.8	6.0	5.3	5.7	6.1
PST-5AP	6.0	7.0	7.7	5.7	7.3	6.3	5.7	5.5	5.3	5.8	4.8	6.8	6.2	5.7	6.0	5.0	6.1
BEL 86-2	6.1	7.0	8.0	6.0	7.3	5.7	5.2	5.7	4.7	5.7	5.3	6.8	5.8	6.7	5.7	5.3	6.0
BRAHMA (LEGEND)	6.1	6.0	8.0	5.5	7.7	6.3	5.0	5.8	6.0	6.2	5.3	7.0	6.0	5.7	5.0	4.3	6.0
CHIEFTAIN	5.3	6.7	7.8	5.2	7.0	6.3	5.3	5.8	5.0	5.5	5.4	6.8	6.7	6.0	5.3	5.7	6.0
BARNONE (BAR FA 7851)	6.3	7.0	8.0	6.0	7.7	5.0	5.2	5.8	5.7	5.0	5.1	6.8	6.1	5.3	6.0	4.7	6.0
PST-5EN	6.2	6.7	7.7	5.8	7.3	5.0	5.3	5.8	6.0	4.8	4.8	6.9	6.1	5.3	6.3	5.3	6.0
TRADITION (PST-DBC)	5.9	6.3	7.7	6.8	7.7	6.0	5.5	5.7	6.0	5.7	4.8	6.8	6.9	5.0	4.3	4.3	6.0
TRIDENT	6.0	6.3	7.7	6.3	7.3	6.7	5.0	5.5	5.3	5.5	4.1	6.9	6.4	5.0	5.7	5.3	5.9
CAREFREE	5.8	7.0	7.8	6.7	7.7	6.3	5.2	5.5	4.7	5.0	4.7	6.8	6.0	6.0	5.0	5.0	5.9
OLYMPIC	6.1	6.7	7.7	5.5	7.0	6.7	5.8	5.3	5.3	5.2	4.6	6.7	5.8	5.7	6.0	5.0	5.9
WRANGLER	5.7	6.7	7.5	5.5	7.7	5.3	5.0	5.7	6.0	6.3	5.0	6.8	5.4	6.3	5.3	4.3	5.9
CIMMARON	6.0	7.0	7.5	5.8	7.7	4.7	5.2	5.7	5.3	5.3	4.7	6.8	6.7	5.7	5.0	5.3	5.9

TABLE 6. (continued)

GENETIC COLOR RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

NAME	GENETIC COLOR RATINGS 1-9; 9=DARK GREEN																
	AR1	AZ1	GA1	ID2	KS2	MD1	MO3	NE1	NJ1	NJ2	NJ3	OH2	OK1	VA3	VA6	WA4	MEAN
JAGUAR II	6.0	6.3	7.8	6.2	7.7	6.7	5.3	5.3	5.3	4.5	4.4	6.7	6.3	4.3	6.0	5.3	5.9
APACHE	5.3	6.7	7.5	4.8	8.0	6.3	5.3	5.7	4.7	5.5	4.8	6.8	6.1	5.0	5.7	6.0	5.9
REBEL II	5.8	7.0	7.5	6.0	7.0	6.7	4.7	5.7	5.0	5.0	4.6	6.6	5.9	5.0	5.7	5.3	5.8
THOROUGHBRED	5.3	6.7	7.7	6.2	7.0	5.0	6.0	5.5	5.0	5.7	4.4	6.8	6.0	4.7	5.7	5.0	5.8
TITAN	5.8	6.0	7.7	5.8	7.3	5.3	4.8	5.2	4.3	5.5	4.0	6.8	6.2	5.3	5.7	4.7	5.7
JB-2	5.6	6.7	7.3	4.3	7.3	5.3	4.7	5.8	4.7	5.2	4.6	6.8	5.3	5.3	6.0	4.7	5.6
PACER	5.1	6.0	7.3	5.3	7.3	5.3	5.3	5.2	5.3	4.2	4.1	6.8	6.3	4.3	4.7	5.3	5.5
FINELAWN 5GL	5.3	6.3	7.3	5.2	7.3	4.0	4.5	5.2	4.3	5.2	5.1	7.0	5.9	4.7	5.3	4.7	5.5
ADVENTURE	5.2	6.7	7.3	5.7	7.3	5.3	4.8	5.3	4.0	3.8	3.4	6.7	5.9	4.7	6.7	4.3	5.4
FALCON	4.8	6.5	7.3	4.8	7.0	6.3	5.3	5.5	4.3	3.7	3.7	6.5	5.7	5.7	4.7	4.3	5.4
FATIMA	5.0	6.7	7.8	6.0	7.0	6.0	5.0	4.8	3.3	3.3	3.3	6.3	5.4	5.3	4.3	5.0	5.3
RICHMOND	4.8	6.0	7.2	5.5	7.0	4.7	4.8	5.3	4.7	4.5	4.0	6.8	5.7	4.7	4.7	4.3	5.3
REBEL	4.8	6.0	7.8	5.8	7.0	5.7	5.0	5.3	4.0	3.8	3.7	6.3	5.8	4.3	4.0	5.0	5.3
WILLAMETTE	5.3	6.3	7.0	5.0	7.3	5.7	5.5	4.5	4.7	4.0	3.0	6.5	5.9	4.0	4.7	5.0	5.3
ARID	5.1	6.7	7.2	5.7	7.0	6.3	4.5	5.2	4.0	3.5	4.0	6.2	5.7	4.7	4.7	3.7	5.2
JAGUAR	4.9	7.0	7.5	5.8	7.0	5.3	4.7	5.3	4.3	4.2	3.2	6.2	5.6	4.0	3.7	4.7	5.2
FINELAWN I	5.4	6.0	7.0	5.2	6.7	5.3	4.5	4.8	4.0	4.0	3.8	6.7	5.4	4.7	5.3	4.0	5.2
AQUARA (SYN GA)	4.8	6.3	7.3	5.5	7.0	5.3	4.3	5.0	3.7	3.2	3.3	6.3	6.1	4.0	4.7	5.0	5.1
TIP	4.4	6.3	7.3	4.5	7.0	5.7	4.0	4.8	4.7	2.7	3.1	6.6	5.8	4.3	4.3	4.0	5.0
KY-31	4.0	6.0	6.5	3.5	6.3	5.7	3.5	4.2	2.3	2.5	2.6	5.9	5.3	4.0	3.3	2.3	4.2
LSD VALUE	0.7	0.7	0.6	1.6	0.8	2.3	1.1	0.6	1.0	1.0	0.8	0.4	0.8	1.1	1.4	1.5	0.2

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).

TABLE 7.

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

NAME	LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 1/									
	AR1	AZ1	CA3	ID2	MI1	MO3	NJ3	OH2	WA4	MEAN
TWILIGHT (KWS-BG-6)	7.6	6.7	6.0	7.2	.	7.0	6.0	5.1	7.0	6.6
AZTEC	7.2	6.2	6.0	6.5	6.3	6.0	6.1	5.1	5.0	6.0
ANTHEM (KWS-DUR)	6.1	6.2	6.0	7.0	6.3	6.3	5.1	5.0	6.3	6.0
HUBBARD 87	6.0	6.2	6.0	6.8	5.7	6.3	6.1	4.9	5.7	6.0
VEGAS (NORMARC 99)	7.1	6.2	6.0	6.5	6.0	5.7	5.9	4.7	5.5	5.9
SHENANDOAH (PE-7E)	6.6	6.5	6.0	6.2	.	5.7	5.6	5.1	6.0	5.9
GUARDIAN (PICK 845PN)	6.1	6.0	6.0	6.5	6.0	5.7	6.0	5.2	5.7	5.9
TAURUS	6.3	5.8	5.3	7.2	6.0	5.3	5.2	4.9	7.0	5.9
CAREFREE	5.1	6.3	6.0	6.5	6.3	5.7	5.7	5.1	6.3	5.9
PE-7	5.3	5.8	6.0	6.0	6.3	6.0	5.7	5.2	6.7	5.9
CROSSFIRE (PICK TF9)	7.3	6.7	6.0	6.0	5.7	7.0	5.9	4.8	3.7	5.9
BEL 86-2	6.1	6.3	6.0	7.3	6.3	5.0	5.7	4.7	5.3	5.9
MURIETTA (PST-5D7)	5.0	6.0	6.0	6.2	7.0	5.3	5.6	5.0	6.7	5.9
REBEL II	5.8	6.0	6.0	7.3	6.0	6.3	6.0	4.6	4.7	5.9
MONARCH	6.8	5.8	6.0	5.3	5.7	6.7	5.8	4.7	5.7	5.8
BRAHMA (LEGEND)	6.3	6.2	5.7	7.2	5.7	5.3	5.0	4.7	6.0	5.8
WRANGLER	6.1	5.6	6.0	7.2	6.0	5.7	5.8	4.7	5.0	5.8
CHIEFTAIN	5.1	6.2	6.0	6.3	5.7	5.7	5.6	5.1	6.3	5.8
PST-5AG	5.6	6.2	6.0	6.7	6.0	5.7	6.1	4.8	5.0	5.8
THOROUGHbred	6.1	6.3	6.0	6.7	5.7	5.3	5.6	4.6	5.7	5.8
SHORTSTOP (PICK DDF)	6.3	6.5	6.0	5.8	5.7	5.3	5.7	4.9	5.7	5.8
SILVERADO (PST-5BL)	5.9	6.0	5.7	6.2	6.7	5.7	5.4	4.7	5.7	5.8
COCHISE (PICK 127)	6.7	6.5	6.0	5.5	5.0	5.0	5.9	4.9	6.3	5.8
AMIGO (PST-5HF)	5.9	6.0	5.7	6.3	5.0	5.7	5.7	4.4	7.0	5.7
TRAILBLAZER	4.6	5.7	5.7	6.5	7.0	6.7	5.6	4.9	5.0	5.7
MAVERICK II (PICK GH6)	5.4	5.8	6.0	6.0	5.0	6.0	5.7	4.6	6.7	5.7
FINELAWN 5GL	5.4	5.4	5.7	6.7	6.0	5.3	5.3	4.8	6.3	5.7
SAFARI (PST-5MW)	4.2	5.8	5.7	6.3	5.7	5.7	6.3	4.8	6.3	5.6
OLYMPIC II (PST-5OL)	6.1	6.5	6.0	6.0	5.3	5.7	5.4	4.4	5.0	5.6
APACHE	6.2	6.2	5.7	5.7	6.3	5.7	4.8	4.9	5.0	5.6
ARRIBA (PST-5DM)	6.1	6.0	6.0	6.3	6.0	5.0	5.3	4.7	4.7	5.6
ELDORADO (PST-5D1)	5.8	6.3	5.7	6.2	5.7	6.3	5.7	4.4	4.0	5.6
ARID	6.1	5.2	6.0	6.2	5.7	5.3	5.1	3.9	6.3	5.5
TRIBUTE	5.8	5.6	5.0	6.3	5.7	5.7	5.2	4.8	5.7	5.5
PACER	5.6	5.6	5.3	5.8	5.7	5.3	4.8	4.3	7.0	5.5
BARNONE (BAR FA 7851)	4.9	5.8	6.0	6.3	.	5.7	4.9	4.7	5.7	5.5
AUSTIN (NORMARC 25)	5.3	5.8	6.0	6.3	.	5.7	4.7	4.6	.	5.5
BONANZA	5.2	5.5	5.7	5.8	5.3	5.7	5.7	4.8	5.7	5.5
OLYMPIC	5.9	6.0	5.7	5.8	4.7	6.0	5.1	4.4	5.7	5.5
SUNDANCE	5.4	6.2	5.7	5.7	6.0	5.7	4.9	4.8	5.0	5.5
WINCHESTER (PST-5F2)	5.3	6.0	5.7	6.3	6.3	5.3	5.4	4.8	4.0	5.5
AVANTI (PICK DM)	5.2	6.6	6.0	5.5	5.3	5.3	5.8	4.7	4.7	5.5
PST-5EN	6.0	5.8	6.0	5.5	6.0	5.0	5.3	4.7	4.7	5.4
TRADITION (PST-DBC)	6.1	5.5	5.3	6.5	5.0	6.0	5.4	4.7	4.3	5.4
EMPEROR (PICK SLD)	4.7	6.2	5.3	6.3	6.7	5.0	5.1	4.2	5.3	5.4

TABLE 7. (continued) LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

NAME	LEAF TEXTURE RATINGS 1-9; 9=VERY FINE									
	AR1	AZ1	CA3	ID2	MI1	MO3	NJ3	OH2	WA4	MEAN
CIMMARON	5.2	5.8	6.0	6.2	5.7	5.3	5.1	4.3	5.0	5.4
JAGUAR	4.4	5.5	6.0	6.5	5.3	5.7	5.1	4.7	5.3	5.4
TITAN	5.6	5.5	5.7	7.0	5.3	5.3	5.1	4.3	4.7	5.4
TRIDENT	5.1	6.0	5.7	5.7	6.7	6.0	3.1	4.6	5.7	5.4
ADVENTURE	4.8	6.0	5.7	5.8	5.7	5.7	4.6	4.2	5.7	5.3
JB-2	5.0	5.4	5.7	6.8	5.3	5.7	5.2	4.6	4.3	5.3
FINELAWN I	5.4	5.2	5.3	6.2	5.0	5.7	4.0	4.4	6.7	5.3
WILLAMETTE	5.2	6.0	5.0	6.7	6.0	5.7	3.3	4.7	5.3	5.3
BEL 86-1	4.2	5.3	6.0	6.0	5.3	6.0	4.9	4.7	5.3	5.3
MESA	5.8	6.3	5.3	5.8	5.0	5.7	4.8	4.7	4.0	5.3
PHOENIX (NORMARC 77)	5.2	5.5	6.0	5.7	5.0	5.7	4.7	4.7	5.0	5.3
JAGUAR II	5.3	5.2	5.7	6.3	6.0	5.3	5.3	4.7	3.3	5.2
REBEL	6.0	5.0	6.0	6.5	4.7	4.7	4.7	4.3	5.3	5.2
PST-5AP	5.2	5.7	5.3	5.5	5.0	5.3	5.2	4.4	4.7	5.2
FALCON	4.7	5.8	5.7	5.5	5.0	6.0	4.3	4.3	4.7	5.1
AQUARA (SYN GA)	5.3	5.3	5.3	5.5	5.3	4.7	3.9	4.1	5.0	4.9
FATIMA	5.1	5.2	5.7	5.2	5.3	5.3	3.6	3.8	4.3	4.8
TIP	5.3	5.4	5.0	5.7	4.7	4.3	4.0	3.7	5.0	4.8
RICHMOND	4.6	5.2	5.3	5.5	4.7	4.7	4.2	4.0	4.7	4.8
KY-31	4.4	4.7	4.0	5.3	5.3	5.3	3.1	3.7	4.7	4.5
LSD VALUE	1.0	1.0	0.6	1.4	1.1	1.1	0.7	1.6	2.3	0.4

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

TABLE 8. SEEDLING VIGOR RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

SEEDLING VIGOR RATINGS 1-9; 9=MAXIMUM VIGOR 1/

NAME	AZ1	ID2	IL2	KS2	MO3	WA4	WA5	MEAN
KY-31	5.7	3.0	8.0	8.0	7.0	5.7	6.5	6.3
JAGUAR	5.3	4.7	6.3	7.0	8.0	4.7	6.3	6.0
TRIDENT	5.7	4.0	7.7	7.0	7.7	4.3	6.0	6.0
ADVENTURE	6.0	3.7	8.0	6.3	7.7	4.0	6.3	6.0
FINELAWN I	5.3	5.0	6.7	7.3	7.0	4.0	6.3	6.0
BEL 86-1	5.3	5.7	6.0	6.7	7.7	4.3	5.7	5.9
APACHE	5.0	3.7	6.7	7.3	7.7	5.3	4.7	5.8
TITAN	6.0	1.7	5.7	7.7	8.3	4.7	6.0	5.7
WILLAMETTE	4.3	4.7	7.0	6.3	7.7	5.0	4.5	5.6
PACER	5.3	2.7	7.7	6.3	7.3	4.0	6.0	5.6
AUSTIN (NORMARC 25)	5.0	2.7	.	7.0	8.7	.	4.7	5.6
THOROUGHbred	6.3	4.3	4.7	7.0	7.3	5.3	4.0	5.6
CIMMARON	4.7	5.0	5.7	6.0	7.3	4.0	6.0	5.5
FINELAWN 5GL	5.3	4.0	5.7	6.3	7.7	4.7	5.0	5.5
SHENANDOAH (PE-7E)	4.3	4.7	5.3	6.7	7.7	5.3	4.7	5.5
RICHMOND	4.0	3.7	6.3	6.3	7.3	5.0	5.7	5.5
OLYMPIC	5.0	2.3	5.3	7.0	8.0	4.7	5.7	5.4
WRANGLER	5.3	3.3	6.0	6.7	7.7	3.3	5.3	5.4
PST-5EN	5.7	3.7	4.7	7.0	8.0	5.3	3.0	5.3
HUBBARD 87	4.3	3.7	5.3	6.7	8.7	4.0	4.7	5.3
CAREFREE	5.0	3.3	6.0	6.0	7.0	4.3	5.5	5.3
MESA	5.0	2.0	5.3	7.0	8.0	3.3	6.5	5.3
ARID	4.7	2.3	7.3	6.7	7.3	4.7	4.0	5.3
TIP	4.7	2.3	8.3	6.7	7.3	4.0	3.5	5.3
FALCON	5.7	1.3	7.0	6.3	7.3	4.0	5.0	5.2
FATIMA	5.0	3.0	5.7	5.7	7.0	4.7	5.5	5.2
TRAILBLAZER	4.7	2.0	4.0	6.7	8.3	5.3	5.5	5.2
REBEL II	4.3	3.0	6.3	7.3	7.7	3.7	4.0	5.2
BRAHMA (LEGEND)	3.7	2.7	6.7	5.7	7.7	4.0	5.3	5.1
OLYMPIC II (PST-5OL)	4.3	2.0	6.0	6.3	7.3	4.7	5.0	5.1
AMIGO (PST-5HF)	4.3	3.0	4.0	6.7	7.0	6.0	4.5	5.1
BARNONE (BAR FA 7851)	4.3	2.3	.	7.0	8.0	4.3	4.3	5.1
CHIEFTAIN	5.0	3.0	5.0	7.3	7.0	4.0	4.0	5.0
SUNDANCE	3.7	3.7	6.3	6.3	8.0	3.3	4.0	5.0
JB-2	5.3	1.7	5.3	6.3	8.0	4.3	4.0	5.0
WINCHESTER (PST-5F2)	4.7	2.0	5.0	6.0	8.0	4.3	5.0	5.0
PE-7	5.0	1.7	2.7	6.7	8.3	4.0	6.3	5.0
REBEL	4.3	2.7	7.3	5.7	7.7	2.7	4.3	5.0
BONANZA	3.7	4.3	5.3	6.3	7.3	4.3	3.3	4.9
AQUARA (SYN GA)	4.0	2.0	6.3	6.7	7.0	4.7	3.7	4.9
PST-5AG	4.0	2.0	6.0	6.3	8.0	4.0	4.0	4.9
MONARCH	4.3	1.7	4.3	6.7	7.7	5.0	4.3	4.9
TAURUS	5.0	1.7	6.7	6.0	7.3	3.0	4.3	4.9
TRIBUTE	5.0	1.7	5.7	6.3	7.3	4.3	3.5	4.8
BEL 86-2	5.3	2.0	4.7	6.3	7.7	4.7	3.0	4.8

TABLE 8. SEEDLING VIGOR RATINGS OF TALL FESCUE CULTIVARS
(continued) 1988-91 DATA

SEEDLING VIGOR RATINGS 1-9; 9=MAXIMUM VIGOR

NAME	AZ1	ID2	IL2	KS2	MO3	WA4	WA5	MEAN
PHOENIX (NORMARC 77)	4.7	3.0	5.0	6.7	8.0	2.7	3.7	4.8
SAFARI (PST-5MW)	3.7	1.7	4.7	5.3	7.7	4.3	6.3	4.8
ARRIBA (PST-5DM)	5.3	2.0	3.7	6.7	7.0	4.0	4.7	4.8
SILVERADO (PST-5BL)	4.3	2.0	2.7	6.0	8.0	5.3	5.0	4.8
AVANTI (PICK DM)	4.0	3.0	5.0	5.7	7.7	3.3	4.5	4.7
PST-5AP	4.0	1.3	5.7	6.7	7.0	4.0	4.3	4.7
JAGUAR II	5.0	3.0	4.7	6.3	8.0	2.7	3.0	4.7
AZTEC	3.3	2.3	4.7	6.0	8.7	3.3	3.7	4.6
MAVERICK II (PICK GH6)	3.7	2.0	5.0	6.3	7.7	4.0	3.3	4.6
ELDORADO (PST-5D1)	3.0	3.0	4.3	6.3	7.7	4.0	3.5	4.5
CROSSFIRE (PICK TF9)	3.7	1.7	3.3	5.7	7.3	4.0	5.0	4.4
GUARDIAN (PICK 845PN)	4.3	2.3	3.7	5.7	7.7	3.3	3.5	4.4
TRADITION (PST-DBC)	4.0	2.0	4.3	6.0	7.0	5.0	2.0	4.3
TWILIGHT (KWS-BG-6)	3.3	1.7	.	5.0	8.0	3.0	5.0	4.3
MURIETTA (PST-5D7)	3.3	3.0	3.0	6.3	7.3	4.0	2.7	4.2
COCHISE (PICK 127)	3.7	1.7	3.0	6.0	7.7	3.0	4.3	4.2
ANTHEM (KWS-DUR)	3.7	2.7	4.0	5.3	8.0	3.0	2.5	4.2
SHORTSTOP (PICK DDF)	3.3	2.0	3.0	5.7	7.3	4.7	3.0	4.1
VEGAS (NORMARC 99)	3.3	1.7	3.7	5.3	7.0	2.3	4.0	3.9
EMPEROR (PICK SLD)	3.0	1.7	3.7	5.3	7.7	2.7	2.7	3.8
LSD VALUE	1.7	2.0	2.1	1.1	1.4	2.4	2.9	0.7

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).

TABLE 9. FALL COLOR RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

FALL COLOR RATINGS 1-9; 9=BEST 1/			
NAME	AZ1	OH2	MEAN
TWILIGHT (KWS-BG-6)	8.0	8.0	8.0
VEGAS (NORMARC 99)	7.8	8.0	7.9
EMPEROR (PICK SLD)	7.7	8.0	7.8
CROSSFIRE (PICK TF9)	8.0	7.3	7.7
AVANTI (PICK DM)	8.3	7.0	7.6
ANTHEM (KWS-DUR)	7.5	7.7	7.6
TAURUS	7.5	7.7	7.6
MAVERICK II (PICK GH6)	7.8	7.3	7.5
AMIGO (PST-5HF)	7.7	7.3	7.5
AZTEC	8.0	7.0	7.5
HUBBARD 87	7.7	7.3	7.5
REBEL	7.7	7.3	7.5
THOROUGHbred	8.0	7.0	7.5
CIMMARON	7.8	7.0	7.4
COCHISE (PICK 127)	7.5	7.3	7.4
SAFARI (PST-5MW)	7.8	7.0	7.4
SHORTSTOP (PICK DDF)	7.8	7.0	7.4
TRAILBLAZER	7.5	7.3	7.4
PST-5AG	7.8	7.0	7.4
WILLAMETTE	7.8	7.0	7.4
ARRIBA (PST-5DM)	7.7	7.0	7.3
BRAHMA (LEGEND)	7.0	7.7	7.3
CHIEFTAIN	7.7	7.0	7.3
PE-7	7.7	7.0	7.3
PST-5AP	7.7	7.0	7.3
SHENANDOAH (PE-7E)	7.3	7.3	7.3
BARNONE (BAR FA 7851)	7.6	7.0	7.3
MONARCH	7.6	7.0	7.3
RICHMOND	7.6	7.0	7.3
SUNDANCE	7.2	7.3	7.3
AUSTIN (NORMARC 25)	7.5	7.0	7.3
ELDORADO (PST-5D1)	7.2	7.3	7.3
FALCON	7.5	7.0	7.3
MESA	7.5	7.0	7.3
OLYMPIC II (PST-5OL)	7.5	7.0	7.3
SILVERADO (PST-5BL)	7.5	7.0	7.3
GUARDIAN (PICK 845PN)	7.4	7.0	7.2
JAGUAR II	7.4	7.0	7.2
JB-2	7.4	7.0	7.2
MURIETTA (PST-5D7)	7.4	7.0	7.2
REBEL II	7.4	7.0	7.2
WINCHESTER (PST-5F2)	7.3	7.0	7.2
BEL 86-1	7.3	7.0	7.1
BEL 86-2	7.3	7.0	7.1
TITAN	7.3	7.0	7.1

FALL COLOR RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

FALL COLOR RATINGS 1-9; 9=BEST

NAME	AZ1	OH2	MEAN
WRANGLER	7.3	7.0	7.1
BONANZA	7.2	7.0	7.1
FINELAWN 5GL	7.2	7.0	7.1
TIP	7.2	7.0	7.1
TRIBUTE	7.2	7.0	7.1
APACHE	7.2	7.0	7.1
AQUARA (SYN GA)	7.2	7.0	7.1
CAREFREE	7.2	7.0	7.1
FATIMA	7.2	7.0	7.1
OLYMPIC	7.2	7.0	7.1
PST-5EN	7.2	7.0	7.1
TRIDENT	7.2	7.0	7.1
ARID	7.0	7.0	7.0
FINELAWN I	7.0	7.0	7.0
JAGUAR	7.0	7.0	7.0
ADVENTURE	7.2	6.7	6.9
PHOENIX (NORMARC 77)	6.8	7.0	6.9
PACER	7.0	6.7	6.8
TRADITION (PST-DBC)	7.2	6.3	6.8
KY-31	6.6	6.3	6.5
LSL VALUE	1.6	0.6	1.0

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).

TABLE 10. WINTER COLOR RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

WINTER COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 1/

NAME	AR1	AZ1	CA1	ID2	WA4	MEAN
TRIDENT	6.3	5.7	5.8	8.0	6.7	6.5
TWILIGHT (KWS-BG-6)	7.7	5.7	5.3	7.3	6.3	6.5
REBEL	6.0	5.2	5.7	7.0	7.3	6.2
SAFARI (PST-5MW)	6.7	5.7	5.8	6.7	6.3	6.2
PACER	6.0	5.4	5.2	7.3	7.0	6.2
PST-5AP	6.0	5.5	5.5	6.3	7.3	6.1
CAREFREE	6.0	5.3	5.2	7.3	6.3	6.0
ELDORADO (PST-5D1)	6.0	5.8	5.7	6.7	6.0	6.0
OLYMPIC II (PST-5OL)	6.3	5.3	5.8	6.7	6.0	6.0
SHENANDOAH (PE-7E)	7.3	5.5	5.7	6.7	5.0	6.0
BRAHMA (LEGEND)	5.7	5.8	5.5	6.7	6.3	6.0
AZTEC	6.3	5.5	5.7	6.7	5.7	6.0
PHOENIX (NORMARC 77)	6.3	5.8	5.7	6.3	5.7	6.0
TRAILBLAZER	6.0	5.8	5.7	5.7	6.7	6.0
VEGAS (NORMARC 99)	6.7	5.0	5.5	6.3	6.3	6.0
AUSTIN (NORMARC 25)	6.7	5.8	5.3	6.0	.	6.0
PST-5EN	5.3	5.5	.	6.3	6.7	6.0
SILVERADO (PST-5BL)	6.3	5.7	5.7	6.7	5.3	5.9
AVANTI (PICK DM)	6.0	5.2	5.7	7.7	5.0	5.9
FALCON	5.7	5.2	5.7	7.0	6.0	5.9
BARNONE (BAR FA 7851)	5.7	5.7	5.8	6.7	5.7	5.9
JAGUAR II	5.3	5.7	5.5	6.0	7.0	5.9
JB-2	6.0	5.7	6.0	6.3	5.5	5.9
PST-5AG	6.3	5.3	5.8	7.0	5.0	5.9
REBEL II	5.3	5.3	5.8	6.7	6.3	5.9
FINELAWN I	5.0	5.6	5.2	7.3	6.3	5.9
AMIGO (PST-5HF)	5.7	5.3	6.0	6.7	5.7	5.9
MAVERICK II (PICK GH6)	6.0	5.3	5.5	6.7	5.7	5.8
ADVENTURE	6.0	5.0	5.8	7.0	5.3	5.8
ARID	5.0	5.0	5.7	7.3	6.0	5.8
ARRIBA (PST-5DM)	5.7	5.8	5.8	6.7	5.0	5.8
CIMMARON	6.0	5.3	5.5	6.3	5.7	5.8
SHORTSTOP (PICK DDF)	6.0	5.0	5.5	7.0	5.3	5.8
BEL 86-2	5.7	5.4	6.0	5.7	6.0	5.7
APACHE	6.3	5.2	5.5	5.7	6.0	5.7
BONANZA	5.7	5.5	5.8	6.0	5.7	5.7
CHIEFTAIN	5.3	5.0	5.7	6.7	6.0	5.7
PE-7	6.0	5.5	5.5	5.7	6.0	5.7
TRIBUTE	5.7	5.5	5.5	7.0	5.0	5.7
ANTHEM (KWS-DUR)	6.3	5.5	5.2	7.3	4.3	5.7
COCHISE (PICK 127)	6.0	5.5	5.5	6.3	5.3	5.7
HUBBARD 87	5.7	5.2	5.8	6.7	5.0	5.7
MURIETTA (PST-5D7)	5.7	5.7	6.0	5.7	5.3	5.7
TAURUS	6.0	5.2	5.5	6.7	5.0	5.7
EMPEROR (PICK SLD)	6.3	5.7	5.3	6.0	5.0	5.7

WINTER COLOR RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

WINTER COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION

NAME	AR1	AZ1	CA1	ID2	WA4	MEAN
TRADITION (PST-DBC)	6.0	5.3	5.7	6.3	5.0	5.7
WINCHESTER (PST-5F2)	5.3	5.3	5.7	7.0	5.0	5.7
AQUARA (SYN GA)	5.7	5.0	5.5	6.7	5.3	5.6
RICHMOND	5.7	5.3	5.2	6.3	5.7	5.6
JAGUAR	5.3	5.6	5.5	6.0	5.7	5.6
TITAN	5.0	5.6	5.2	7.0	5.3	5.6
CROSSFIRE (PICK TF9)	6.3	5.5	5.5	6.0	4.7	5.6
GUARDIAN (PICK 845PN)	6.0	5.5	5.2	5.0	6.3	5.6
WRANGLER	5.0	5.5	5.5	6.3	5.5	5.6
MONARCH	6.0	5.2	5.8	5.3	5.3	5.5
MESA	5.3	5.0	5.2	6.7	5.3	5.5
SUNDANCE	6.0	5.2	5.3	6.0	5.0	5.5
TIP	5.0	5.5	5.3	6.3	5.3	5.5
WILLAMETTE	5.3	5.3	5.7	5.3	5.7	5.5
THOROUGHBRED	5.3	5.2	5.3	5.7	5.7	5.4
FATIMA	5.3	5.0	4.8	6.7	5.3	5.4
FINELAWN 5GL	5.0	5.2	5.5	6.7	4.7	5.4
OLYMPIC	5.0	5.3	5.5	5.7	5.3	5.4
BEL 86-1	5.0	5.3	5.0	5.7	5.7	5.3
KY-31	5.3	4.8	4.8	5.7	4.7	5.1
LSL VALUE	1.1	0.6	0.6	1.6	1.8	0.4

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

TABLE 11.

 SPRING DENSITY RATINGS OF TALL FESCUE CULTIVARS
 1988-91 DATA

NAME	DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 1/									
	AR1	AZ1	CA1	ID2	MO3	NJ3	OH2	OK1	WA4	MEAN
HUBBARD 87	5.6	7.3	7.7	9.0	7.7	5.8	7.0	5.0	8.7	7.1
PE-7	5.5	6.9	7.6	9.0	8.0	5.5	7.0	6.0	8.0	7.1
PST-5AG	5.6	7.1	7.6	9.0	7.3	5.7	6.3	6.0	8.7	7.0
BONANZA	5.4	7.3	7.6	9.0	7.5	4.8	8.0	5.7	7.7	7.0
TITAN	5.6	7.0	7.6	9.0	7.4	5.0	8.0	5.7	7.0	6.9
THOROUGHbred	5.6	7.1	7.4	9.0	7.3	4.7	7.3	5.3	8.3	6.9
TWILIGHT (KWS-BG-6)	6.6	7.3	7.4	8.3	7.8	5.0	6.7	4.7	8.3	6.9
GUARDIAN (PICK 845PN)	6.3	7.5	7.9	7.7	7.6	6.0	6.3	5.7	7.0	6.9
BEL 86-2	5.7	7.5	7.6	8.7	7.4	5.2	6.7	5.3	7.7	6.9
SUNDANCE	5.1	7.5	7.6	8.7	7.5	4.7	7.3	5.7	7.7	6.8
PHOENIX (NORMARC 77)	5.3	7.3	7.6	9.0	7.6	4.8	7.0	5.3	7.7	6.8
TRADITION (PST-DBC)	6.1	7.7	7.6	9.0	6.8	4.5	7.7	5.0	7.3	6.8
CROSSFIRE (PICK TF9)	6.5	7.3	7.8	9.0	7.3	5.7	6.0	5.7	6.3	6.8
AUSTIN (NORMARC 25)	5.5	7.4	7.4	9.0	7.2	4.7	7.7	5.7	.	6.8
OLYMPIC II (PST-5OL)	5.9	7.0	7.6	9.0	7.3	4.8	7.0	5.0	7.7	6.8
MAVERICK II (PICK GH6)	5.3	7.6	7.7	8.7	7.3	5.0	5.7	5.3	8.7	6.8
FINELAWN 5GL	5.4	7.5	7.6	9.0	7.4	4.6	7.7	4.7	7.3	6.8
SHENANDOAH (PE-7E)	5.8	7.3	7.8	8.3	7.5	5.7	7.0	5.0	6.7	6.8
REBEL II	6.0	7.2	7.4	8.7	7.1	5.2	7.7	5.3	6.3	6.8
APACHE	5.9	7.5	7.4	8.3	7.2	4.5	7.0	5.0	8.0	6.8
ANTHEM (KWS-DUR)	5.6	7.5	7.7	9.0	7.7	5.0	5.3	5.3	7.7	6.8
SAFARI (PST-5MW)	4.1	7.2	7.8	9.0	7.3	5.7	7.0	5.3	7.3	6.7
CAREFREE	5.1	7.3	7.6	9.0	7.3	5.0	6.3	5.7	7.3	6.7
OLYMPIC	6.2	7.1	7.2	9.0	6.9	4.2	7.7	5.3	7.0	6.7
TAURUS	5.5	7.7	7.4	8.3	7.3	4.7	7.0	6.0	6.7	6.7
AMIGO (PST-5HF)	5.7	7.4	7.7	9.0	6.7	5.7	6.7	5.0	6.7	6.7
TRAILBLAZER	4.5	7.0	7.6	8.7	7.5	5.2	6.7	6.0	7.3	6.7
MESA	5.9	7.2	7.7	9.0	7.3	3.8	7.3	5.7	6.3	6.7
TRIBUTE	5.5	7.5	7.3	9.0	7.6	5.2	6.7	4.7	6.7	6.7
ARID	6.2	7.0	7.4	9.0	7.4	4.4	6.7	5.0	7.0	6.7
VEGAS (NORMARC 99)	6.3	6.9	7.4	8.7	7.5	5.4	5.0	5.3	7.5	6.7
PST-5AP	5.3	7.1	7.2	8.7	7.0	4.7	6.7	5.7	7.7	6.7
PST-5EN	5.8	7.2	.	8.7	7.2	4.2	7.3	5.0	7.7	6.6
CHIEFTAIN	5.0	7.6	7.3	7.7	7.3	5.0	8.0	5.0	6.7	6.6
JAGUAR II	5.5	6.8	7.4	8.7	7.2	4.7	6.3	6.0	6.7	6.6
TRIDENT	5.0	7.0	7.1	9.0	7.3	3.5	7.3	5.3	7.7	6.6
AQUARA (SYN GA)	5.5	6.7	6.9	9.0	7.3	4.3	7.7	5.3	6.3	6.6
REBEL	5.7	7.0	7.1	8.0	7.1	4.0	7.0	5.7	7.3	6.5
FATIMA	5.1	6.9	6.9	9.0	6.6	3.5	7.3	6.0	7.3	6.5
AZTEC	5.6	7.3	7.7	8.0	7.5	5.2	5.7	4.7	7.0	6.5
COCHISE (PICK 127)	6.3	7.4	7.3	8.3	7.2	5.7	6.0	4.3	6.0	6.5
WRANGLER	5.9	6.8	7.7	8.7	7.3	4.8	6.7	5.7	5.0	6.5
MONARCH	5.8	7.1	7.7	9.0	7.3	5.7	6.0	5.0	5.0	6.5
WILLAMETTE	5.3	6.8	7.3	8.7	6.9	3.3	7.3	5.0	7.7	6.5
FINELAWN I	5.4	7.4	7.4	9.0	7.2	3.2	8.0	4.3	6.3	6.5

TABLE 11.
(continued)

SPRING DENSITY RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

NAME	DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY									
	AR1	AZ1	CA1	ID2	MO3	NJ3	OH2	OK1	WA4	MEAN
BEL 86-1	4.8	6.9	7.3	9.0	6.9	4.8	7.3	5.7	5.3	6.5
AVANTI (PICK DM)	4.6	7.5	7.7	8.0	7.4	4.6	6.0	4.7	7.7	6.5
MURIETTA (EST-5D7)	4.1	6.8	7.7	9.0	7.3	5.3	5.3	5.7	7.0	6.5
ADVENTURE	4.8	7.2	7.4	9.0	7.1	4.5	7.7	4.7	5.7	6.4
CIMMARON	5.2	7.7	7.4	8.7	7.1	4.7	8.0	4.7	4.7	6.4
JAGUAR	4.8	6.9	7.2	8.3	6.8	4.5	8.0	4.7	6.7	6.4
BRAHMA (LEGEND)	5.5	6.8	7.7	8.3	7.3	4.2	6.0	5.0	7.0	6.4
BARNONE (BAR FA 7851)	5.0	7.5	7.6	8.0	7.3	4.7	6.7	4.7	6.3	6.4
WINCHESTER (PST-5F2)	4.7	7.1	7.4	8.0	7.3	5.0	6.7	5.3	6.0	6.4
SILVERADO (PST-5BL)	5.1	7.2	8.0	8.7	6.9	5.2	5.7	5.0	5.7	6.4
SHORTSTOP (PICK DDF)	5.2	6.3	7.4	8.7	7.3	5.5	5.3	5.3	6.3	6.4
FALCON	5.3	7.0	7.1	7.7	7.4	3.8	7.0	5.3	6.0	6.3
ELDORADO (EST-5D1)	5.0	7.2	7.6	8.7	7.2	4.8	5.7	5.3	5.0	6.3
JB-2	5.0	7.4	7.4	7.3	7.3	4.4	6.7	5.7	5.0	6.2
PACER	5.4	6.6	6.9	7.3	7.0	4.0	6.0	5.3	7.3	6.2
EMPEROR (PICK SLD)	4.5	7.3	7.7	7.3	7.3	5.3	5.0	5.3	6.0	6.2
RICHMOND	4.8	6.7	6.8	9.0	7.0	3.8	5.3	5.0	7.3	6.2
TIP	5.2	6.7	7.1	9.0	6.7	3.6	5.3	4.7	7.3	6.2
ARRIBA (PST-5DM)	5.3	6.7	7.6	7.7	7.1	4.7	6.0	5.0	4.3	6.0
KY-31	5.2	6.3	6.2	8.3	5.9	2.8	7.7	5.7	5.3	5.9
LSD VALUE	0.8	0.7	0.6	1.5	0.6	1.0	1.4	1.2	2.6	0.3

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).

TABLE 12. SUMMER DENSITY RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 1/						
NAME	AR1	AZ1	CA1	MO3	NJ3	MEAN
CROSSFIRE (PICK TF9)	7.2	7.4	7.9	6.4	5.5	6.9
SHENANDOAH (PE-7E)	6.8	7.8	7.8	7.0	5.2	6.9
PST-5AG	5.8	7.0	8.0	6.8	6.3	6.8
ARRIBA (PST-5DM)	5.9	7.4	8.2	6.3	6.0	6.8
BEL 86-2	6.1	7.1	8.1	6.8	5.7	6.8
TRIBUTE	6.2	7.7	7.7	6.9	5.3	6.8
GUARDIAN (PICK 845PN)	6.9	7.3	7.8	6.8	4.8	6.7
AMIGO (PST-5HF)	6.2	7.6	7.9	6.2	5.7	6.7
AZTEC	5.7	7.7	7.4	6.8	5.8	6.7
REBEL II	5.8	7.6	7.9	6.7	5.5	6.7
VEGAS (NORMARC 99)	6.4	7.3	7.4	6.3	5.7	6.6
OLYMPIC II (PST-5OL)	6.4	7.2	8.0	6.4	5.0	6.6
WRANGLER	5.9	7.3	7.9	6.4	5.5	6.6
MONARCH	6.1	7.1	7.2	6.4	6.0	6.6
HUBBARD 87	5.6	7.3	7.9	6.9	5.2	6.6
MAVERICK II (PICK GH6)	5.4	7.2	7.6	6.8	5.8	6.6
ANTHEM (KWS-DUR)	5.7	7.2	7.6	7.0	5.3	6.6
PE-7	5.7	7.4	7.9	6.9	4.8	6.5
SAFARI (PST-5MW)	4.6	7.8	7.7	6.7	6.0	6.5
TWILIGHT (KWS-BG-6)	5.7	7.6	7.4	7.3	4.7	6.5
COCHISE (PICK 127)	6.0	7.2	7.1	6.8	5.5	6.5
SHORTSTOP (PICK DDF)	6.0	7.6	7.0	6.9	5.2	6.5
MESA	5.7	7.9	7.4	6.8	4.7	6.5
AVANTI (PICK DM)	4.9	7.6	8.0	6.6	5.3	6.5
THOROUGHbred	5.9	7.8	7.7	6.2	4.8	6.5
TRADITION (PST-DBC)	6.6	7.2	7.4	6.3	4.8	6.5
SILVERADO (PST-5BL)	5.4	7.6	7.7	6.3	5.3	6.5
PST-5AP	6.1	7.4	7.1	6.7	5.0	6.5
TAURUS	6.0	7.6	7.1	6.7	5.0	6.5
SUNDANCE	5.7	7.7	7.4	7.0	4.5	6.5
ARID	6.6	7.4	7.2	6.6	4.3	6.4
APACHE	6.4	7.0	7.3	6.1	5.2	6.4
ELDORADO (PST-5D1)	5.2	7.6	7.3	6.8	5.2	6.4
PHOENIX (NORMARC 77)	5.4	7.2	7.6	6.7	5.2	6.4
WINCHESTER (PST-5F2)	5.2	7.6	7.4	6.7	5.2	6.4
TITAN	6.0	7.2	6.9	6.1	5.7	6.4
MURIETTA (PST-5D7)	5.0	7.4	8.1	6.1	5.2	6.4
AUSTIN (NORMARC 25)	5.1	7.3	7.3	6.7	5.3	6.4
BRAHMA (LEGEND)	5.3	7.3	7.7	6.9	4.5	6.3
PST-5EN	6.2	7.6	.	6.6	5.0	6.3
BONANZA	5.4	7.4	7.1	6.6	5.0	6.3
JAGUAR II	5.7	7.2	7.3	6.4	4.8	6.3
BARNONE (BAR FA 7851)	5.3	7.4	7.3	6.3	4.8	6.3
CHIEFTAIN	5.0	7.3	7.1	6.3	5.5	6.3
CIMMARON	5.8	7.2	7.1	6.2	4.8	6.2

SUMMER DENSITY RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY

NAME	AR1	AZ1	CA1	MO3	NJ3	MEAN
EMPEROR (PICK SLD)	5.1	7.1	7.1	7.0	4.8	6.2
TRAILBLAZER	4.9	7.3	7.6	6.6	4.7	6.2
CAREFREE	5.0	7.3	7.4	6.4	4.7	6.2
JB-2	5.2	7.3	7.1	6.3	4.7	6.1
OLYMPIC	5.6	7.3	7.1	6.3	4.3	6.1
REBEL	5.7	7.0	7.3	6.3	4.2	6.1
FINELAWN 5GL	5.3	7.0	7.1	6.4	4.5	6.1
FINELAWN I	5.9	7.1	7.1	6.3	3.8	6.1
WILLAMETTE	5.9	7.4	6.8	6.0	4.2	6.1
PACER	5.7	6.9	6.7	6.6	4.5	6.1
FATIMA	5.9	7.4	6.4	6.2	4.0	6.0
JAGUAR	5.1	6.9	7.1	6.0	4.8	6.0
ADVENTURE	5.0	6.9	7.3	6.0	4.7	6.0
AQUARA (SYN GA)	5.7	6.9	6.6	6.1	4.3	5.9
BEL 86-1	4.6	6.9	7.4	6.3	4.3	5.9
TIP	5.9	6.9	6.8	5.9	3.7	5.8
TRIDENT	5.1	7.4	6.9	6.1	3.5	5.8
FALCON	5.1	7.1	6.6	5.7	4.3	5.8
RICHMOND	5.2	6.9	6.7	5.9	4.0	5.7
KY-31	4.9	7.4	5.8	4.9	3.0	5.2
LSD VALUE	1.0	1.2	0.7	0.7	1.0	0.4

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

TABLE 13. FALL DENSITY RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

NAME	DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 1/								MEAN
	AR1	AZ1	CA1	ID2	MO3	NJ3	OK1	WA4	
SHENANDOAH (PE-7E)	6.9	7.5	7.3	7.0	7.9	5.3	6.7	6.7	6.9
GUARDIAN (PICK 845PN)	6.2	7.2	7.7	6.0	8.1	6.3	6.6	6.7	6.8
OLYMPIC II (PST-50L)	6.1	6.8	7.3	6.7	7.8	5.7	6.6	6.3	6.7
TRIBUTE	5.4	6.8	7.2	7.7	7.8	5.0	6.7	6.7	6.6
SAFARI (PST-5MW)	4.4	7.5	7.4	6.3	7.6	6.0	6.2	7.3	6.6
AVANTI (PICK DM)	4.7	7.2	7.3	7.7	7.8	5.3	6.1	6.7	6.6
CROSSFIRE (PICK TF9)	6.4	7.0	7.6	6.7	7.7	5.3	6.3	5.7	6.6
PST-5AG	5.2	6.8	7.1	6.3	8.0	7.0	6.8	5.3	6.6
TWILIGHT (KWS-BG-6)	5.6	7.5	7.0	7.3	8.1	5.0	5.3	6.7	6.6
PE-7	5.2	6.7	7.3	7.3	8.0	5.3	6.7	6.0	6.6
HUBBARD 87	4.6	7.3	7.3	7.0	7.9	6.0	6.3	6.0	6.6
AUSTIN (NORMARC 25)	4.6	7.0	7.2	7.7	7.4	6.0	6.0	.	6.5
AZTEC	5.2	7.2	7.5	7.7	7.6	5.3	5.8	6.0	6.5
BRAHMA (LEGEND)	5.6	7.3	7.3	7.0	8.0	5.7	6.3	5.0	6.5
THOROUGHbred	5.4	7.2	7.1	6.3	7.4	5.3	6.2	7.0	6.5
WRANGLER	5.9	6.5	7.5	7.0	7.8	5.7	6.8	4.7	6.5
ANTHEM (KWS-DUR)	5.2	6.3	7.3	7.0	8.1	5.3	5.4	7.0	6.5
TRADITION (PST-DBC)	6.2	7.2	7.1	6.7	7.1	5.3	7.0	5.0	6.4
ARID	5.6	6.7	6.8	7.0	7.6	5.0	6.9	6.0	6.4
CAREFREE	4.4	6.8	7.3	8.0	7.4	5.0	5.8	6.7	6.4
AMIGO (EST-5HF)	5.2	7.3	7.3	6.3	7.6	5.7	6.3	5.7	6.4
SHORTSTOP (PICK DDF)	6.0	7.2	7.2	7.0	8.0	5.3	5.3	5.3	6.4
APACHE	6.0	6.8	7.1	6.3	7.4	4.3	6.6	6.7	6.4
BEL 86-2	5.7	7.2	7.3	6.0	7.9	5.7	6.1	5.3	6.4
PHOENIX (NORMARC 77)	5.0	7.0	7.3	7.0	7.9	5.0	6.9	5.0	6.4
PST-5AP	5.0	7.0	6.9	6.7	7.3	5.0	6.7	6.3	6.4
JB-2	5.0	6.6	6.7	7.3	7.4	5.3	6.1	6.3	6.4
TAURUS	5.1	7.3	7.5	5.7	7.4	5.3	6.3	6.0	6.3
MESA	5.3	7.2	7.2	6.7	7.7	5.0	6.3	5.3	6.3
MONARCH	5.7	6.8	7.3	6.3	7.7	5.3	6.1	5.3	6.3
TRAILBLAZER	4.1	6.5	7.3	7.3	7.7	5.3	6.2	6.0	6.3
BONANZA	4.7	6.8	7.4	6.3	7.6	5.3	6.7	5.7	6.3
FINELAWN 5GL	4.8	6.2	6.6	7.3	7.1	5.0	6.7	6.7	6.3
MURIETTA (PST-5D7)	4.7	6.4	7.7	6.0	7.8	5.3	6.2	6.0	6.3
PST-5EN	5.9	7.0	.	6.7	7.4	5.3	6.1	5.3	6.3
TITAN	4.8	6.8	6.8	7.0	6.9	5.3	6.3	6.0	6.2
ELDORADO (PST-5D1)	5.3	6.8	7.0	6.3	8.0	5.7	6.1	4.7	6.2
JAGUAR II	5.0	7.0	7.2	7.7	7.6	4.7	5.9	5.0	6.2
EMPEROR (PICK SLD)	4.8	6.3	7.3	7.3	7.8	5.7	5.8	5.0	6.2
COCHISE (PICK 127)	5.6	7.0	6.9	6.3	7.6	5.7	5.9	5.0	6.2
SILVERADO (PST-5BL)	5.1	6.3	7.1	7.0	7.4	5.7	6.6	4.7	6.2
VEGAS (NORMARC 99)	6.9	7.4	7.0	5.3	7.8	5.0	5.4	5.0	6.2
SUNDANCE	4.8	6.6	7.0	6.3	7.6	5.3	6.2	6.0	6.2
FATIMA	5.2	7.2	6.2	6.7	7.0	4.7	6.2	6.7	6.2
CHIEFTAIN	5.2	7.2	7.0	5.7	7.4	5.3	6.6	5.3	6.2

TABLE 13. FALL DENSITY RATINGS OF TALL FESCUE CULTIVARS
(continued) 1988-91 DATA

NAME	DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY								MEAN
	AR1	AZ1	CA1	ID2	MO3	NJ3	OK1	WA4	
OLYMPIC	4.9	7.0	7.0	6.0	7.3	5.0	6.0	6.3	6.2
REBEL	4.9	6.3	7.1	7.3	7.0	5.3	6.0	5.7	6.2
TIP	5.6	6.6	6.7	6.3	6.4	5.0	6.3	6.3	6.2
ADVENTURE	4.6	7.0	6.7	7.0	7.2	4.3	6.3	6.0	6.1
MAVERICK II (PICK GH6)	5.0	6.5	7.3	6.0	7.7	5.3	6.0	5.3	6.1
JAGUAR	4.3	6.8	7.1	7.0	6.4	5.0	6.7	5.7	6.1
ARRIBA (PST-5DM)	5.0	6.8	7.5	7.0	7.6	4.7	5.4	5.0	6.1
REBEL II	5.1	6.8	6.9	6.0	6.8	5.7	6.2	5.3	6.1
WINCHESTER (PST-5F2)	4.6	7.2	7.2	6.0	7.6	5.0	6.0	5.3	6.1
RICHMOND	4.3	6.8	6.8	7.7	6.6	4.3	5.7	6.7	6.1
BEL 86-1	4.3	6.8	7.1	6.7	7.4	4.3	6.7	5.3	6.1
CIMMARON	4.8	6.7	6.9	6.7	7.4	4.7	5.8	5.7	6.1
WILLAMETTE	4.9	6.8	6.7	6.3	6.9	5.0	5.6	6.3	6.1
PACER	5.1	6.4	6.4	6.7	7.2	4.0	6.6	6.0	6.0
TRIDENT	4.3	7.0	6.8	6.0	7.2	5.0	6.2	5.7	6.0
FINELAWN I	5.1	6.0	6.4	6.3	7.1	4.7	6.7	5.7	6.0
BARNONE (BAR FA 7851)	5.0	6.8	7.2	5.7	7.4	4.7	5.6	5.3	6.0
AQUARA (SYN GA)	5.0	6.8	6.2	6.7	6.9	4.7	6.0	5.0	5.9
FALCON	4.2	5.8	6.3	6.3	7.2	5.3	6.2	5.3	5.9
KY-31	3.6	6.2	5.3	5.3	5.7	4.0	6.4	5.0	5.2
LSD VALUE	1.0	1.1	0.6	1.6	0.8	1.0	1.0	1.9	0.4

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

TABLE 14.

PERCENT LIVING GROUND COVER (SPRING)
 RATINGS OF TALL FESCUE CULTIVARS
 1988-91 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 1/										
NAME	AZ1	ID2	MO1	MO3	OK1	VA2	VA3	WA4	WA6	MEAN
THOROUGHbred	96.8	84.7	73.3	94.2	92.8	71.7	91.7	99.0	83.0	87.5
WILLAMETTE	94.7	90.0	74.8	94.7	79.0	66.7	93.3	99.0	81.3	85.9
PST-5EN	96.8	91.3	75.8	96.0	79.0	68.3	93.3	96.0	75.0	85.7
REBEL II	96.7	81.7	80.8	95.7	84.2	71.7	93.3	93.0	71.7	85.4
PST-5AG	94.7	88.3	72.5	95.2	89.5	73.3	93.3	96.0	65.0	85.3
PST-5AP	95.2	83.3	73.3	94.2	80.5	68.3	95.0	97.7	79.7	85.2
OLYMPIC	96.3	88.3	74.2	94.7	85.7	68.3	93.3	94.3	71.7	85.2
SAFARI (PST-5MW)	96.8	83.3	78.3	95.7	81.3	68.3	91.7	97.7	71.7	85.0
CAREFREE	96.3	85.0	74.7	96.7	79.8	66.7	91.7	97.7	75.0	84.8
MESA	95.9	83.3	81.7	94.2	88.0	70.0	91.7	88.3	68.3	84.6
TIP	96.0	83.3	73.3	93.2	80.7	60.0	88.3	97.7	88.3	84.5
SUNDANCE	96.3	80.0	72.5	92.2	82.3	68.3	95.0	99.0	75.0	84.5
PE-7	95.8	85.0	79.2	94.7	84.2	70.0	93.3	97.7	60.0	84.4
JAGUAR	95.8	88.0	80.7	94.7	87.3	68.3	91.7	97.7	55.0	84.3
FATIMA	96.2	80.0	77.3	89.2	83.2	63.3	93.3	97.7	78.3	84.3
BRAHMA (LEGEND)	95.4	80.0	77.5	92.5	83.0	66.7	95.0	96.3	71.7	84.2
REBEL	94.4	91.3	82.3	93.2	82.3	58.3	90.0	97.7	68.3	84.2
CHIEFTAIN	96.8	80.0	75.0	95.2	86.5	71.7	93.3	96.0	63.3	84.2
PHOENIX (NORMARC 77)	96.2	83.3	79.2	95.2	80.7	68.3	90.0	94.3	66.7	83.8
TRAILBLAZER	95.1	80.0	76.7	93.8	87.2	70.0	91.7	96.0	63.3	83.8
FINELAWN 5GL	96.5	80.0	72.2	95.2	84.7	70.0	93.3	94.7	66.7	83.7
HUBBARD 87	96.0	91.3	72.5	93.2	80.8	70.0	91.7	99.0	58.3	83.6
SHENANDOAH (PE-7E)	95.2	83.3	79.0	94.8	88.8	66.7	90.0	91.3	63.3	83.6
APACHE	96.8	83.3	61.5	94.3	86.3	71.7	91.7	99.0	66.7	83.5
WINCHESTER (PST-5F2)	95.2	75.0	73.2	95.8	80.5	70.0	93.0	94.7	73.0	83.4
AUSTIN (NORMARC 25)	96.8	81.7	72.5	95.8	85.0	66.7	93.3	.	75.0	83.3
JAGUAR II	96.2	78.3	74.2	94.7	83.2	70.0	90.0	86.7	76.7	83.3
GUARDIAN (PICK 845PN)	96.8	83.3	78.3	90.5	73.3	61.7	91.7	99.0	75.0	83.3
TRIDENT	96.3	83.3	72.5	92.5	83.2	58.3	88.3	96.0	78.3	83.2
FINELAWN I	95.3	85.0	79.0	92.8	81.5	70.0	90.0	88.3	66.7	83.2
BONANZA	96.3	80.0	76.5	95.3	80.5	66.7	93.3	94.7	65.0	83.1
KY-31	96.2	81.7	63.2	92.2	91.2	66.7	91.7	90.0	75.0	83.1
TITAN	95.4	81.7	74.5	94.8	88.8	70.0	90.0	93.0	58.3	83.0
ARID	95.7	81.7	73.3	94.7	83.3	65.0	91.7	92.7	66.7	82.7
PACER	95.4	83.3	68.2	94.7	83.2	66.7	91.7	93.0	68.3	82.7
ANTHEM (KWS-DUR)	96.3	83.3	72.5	94.7	83.7	68.3	86.7	93.0	65.0	82.6
TAURUS	96.8	85.0	71.5	92.5	86.2	70.0	90.0	91.3	60.0	82.6
MAVERICK II (PICK GH6)	96.2	83.3	71.7	95.5	83.8	61.7	95.0	96.0	60.0	82.6
TRADITION (PST-DEC)	96.8	83.3	61.7	94.5	83.8	66.7	91.7	94.7	70.0	82.6
OLYMPIC II (PST-5OL)	95.8	81.7	67.5	94.0	81.5	68.3	91.7	96.0	63.3	82.2
JB-2	95.4	76.7	65.0	93.7	87.8	66.7	91.7	84.7	78.0	82.2
FALCON	96.2	86.7	60.8	93.8	80.0	70.0	95.0	91.3	65.0	82.1
ELDORADO (PST-5DL)	95.8	83.3	76.5	93.8	79.2	65.0	93.3	81.7	70.0	82.1
AMIGO (PST-5HF)	95.7	76.7	74.8	94.2	79.0	68.3	90.0	88.0	68.3	81.7
AZTEC	96.3	78.3	65.0	90.8	79.8	68.3	90.0	97.7	68.3	81.6

TABLE 14.
(continued)

PERCENT LIVING GROUND COVER (SPRING)
RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

NAME	PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS									
	AZ1	ID2	MO1	MO3	OK1	VA2	VA3	WA4	WA6	MEAN
BARNONE (BAR FA 7851)	95.9	83.3	69.2	94.5	83.2	63.3	91.7	81.7	70.0	81.4
AQUARA (SYN GA)	95.2	80.0	62.5	94.7	74.8	63.3	91.7	91.3	78.3	81.3
TRIBUTE	96.0	78.3	80.0	93.3	85.8	68.3	90.0	90.0	48.3	81.1
WRANGLER	94.1	83.3	71.3	94.2	83.3	70.0	93.3	76.7	63.3	81.1
RICHMOND	95.8	90.0	75.0	93.8	81.5	68.3	91.7	91.3	41.7	81.0
BEL 86-2	96.8	86.7	66.7	94.0	80.7	70.0	93.3	97.7	41.7	80.8
COCHISE (PICK 127)	95.7	75.0	71.7	91.3	81.5	66.7	90.0	86.7	68.3	80.8
MONARCH	95.2	73.3	72.3	95.5	88.7	63.3	90.0	80.0	63.3	80.2
MURIETTA (PST-5D7)	93.6	80.0	68.3	94.7	77.5	60.0	85.0	96.3	63.3	79.9
AVANTI (PICK DM)	96.5	78.3	68.3	95.8	77.3	65.0	88.3	94.3	53.3	79.7
EMPEROR (PICK SLD)	95.8	83.3	72.3	90.8	66.7	56.7	88.3	94.7	66.7	79.5
CIMMARON	97.2	81.7	69.2	95.5	83.8	68.3	91.7	76.3	50.0	79.3
SILVERADO (PST-5BL)	94.1	80.0	62.5	95.0	78.0	63.3	88.3	81.3	70.0	79.2
CROSSFIRE (PICK TF9)	95.8	80.0	63.3	94.2	84.7	65.0	90.0	89.7	48.3	79.0
TWILIGHT (KWS-BG-6)	95.2	81.7	69.2	90.8	78.2	61.7	86.7	97.7	46.7	78.6
ARRIBA (PST-5DM)	94.9	78.3	70.8	94.3	83.2	63.3	90.0	76.7	51.7	78.1
ADVENTURE	96.2	80.0	69.2	94.5	78.2	68.3	90.0	79.7	46.7	78.1
BEL 86-1	95.8	84.7	65.8	93.3	84.8	68.3	90.0	81.7	35.0	77.7
VEGAS (NORMARC 99)	93.5	78.3	76.7	93.2	74.0	65.0	88.3	97.0	33.3	77.7
SHORTSTOP (PICK DDF)	89.1	71.7	70.0	90.0	63.2	63.3	88.3	82.7	55.0	74.8
LSD VALUE	3.5	11.1	23.4	4.3	15.9	9.1	5.7	17.0	31.9	5.0

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).

TABLE 15. PERCENT LIVING GROUND COVER (SUMMER)
RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 1/							
NAME	AZ1	MI1	MO1	MO3	OK1	VA3	MEAN
THOROUGHBRED	96.7	93.3	54.2	90.8	97.7	97.7	88.4
OLYMPIC	96.2	91.7	55.8	93.0	97.7	95.0	88.2
CHIEFTAIN	96.3	86.7	58.3	93.8	95.0	97.0	87.9
FINELAWN I	95.4	96.0	52.5	91.3	96.3	95.3	87.8
SHENANDOAH (PE-7E)	96.8	.	60.8	92.3	91.3	97.7	87.8
PE-7	96.1	86.7	55.8	94.7	95.0	98.3	87.8
MESA	96.0	90.0	65.0	91.5	95.0	86.7	87.4
HUBBARD 87	95.1	85.0	66.7	94.7	90.0	91.3	87.1
FATIMA	96.2	90.0	62.5	86.7	88.3	99.0	87.1
TITAN	96.0	89.3	58.3	92.8	96.0	89.7	87.0
REBEL II	97.2	91.7	59.2	91.3	96.0	86.7	87.0
TRAILBLAZER	96.2	88.3	60.8	93.0	93.3	90.0	87.0
TRIBUTE	95.7	85.0	60.8	92.2	95.0	92.7	86.9
AMIGO (PST-5HF)	96.2	85.0	60.8	89.8	93.0	95.3	86.7
OLYMPIC II (PST-5OL)	95.8	87.7	55.0	90.8	93.3	97.3	86.7
PHOENIX (NORMARC 77)	93.7	76.7	63.3	93.0	94.3	98.3	86.6
ELDORADO (PST-5D1)	96.1	90.0	60.8	88.2	86.7	96.3	86.4
FINELAWN 5GL	94.1	93.3	55.0	89.8	91.7	94.0	86.3
SUNDANCE	95.2	86.7	57.5	92.2	91.7	94.7	86.3
FALCON	95.4	94.3	51.7	89.7	94.7	91.3	86.2
AUSTIN (NORMARC 25)	96.7	.	62.5	92.8	90.0	88.7	86.1
TAURUS	96.3	91.7	55.0	87.5	93.0	92.0	85.9
PST-5AP	96.1	85.0	63.3	93.0	96.3	81.7	85.9
KY-31	97.2	90.0	54.2	85.0	96.0	92.0	85.7
ANTHEM (KWS-DUR)	96.3	76.7	65.0	91.5	85.0	98.7	85.5
JAGUAR	95.5	85.0	59.2	90.5	94.7	88.3	85.5
BARNONE (BAR FA 7851)	94.7	.	56.7	92.8	84.7	98.3	85.4
CROSSFIRE (PICK TF9)	95.7	80.0	51.7	94.5	94.7	95.3	85.3
PST-5AG	94.2	83.3	50.8	93.2	93.0	96.3	85.1
PST-5EN	96.2	88.3	56.7	89.8	88.3	91.0	85.1
MONARCH	94.7	86.7	50.8	92.2	91.7	94.3	85.1
TWILIGHT (KWS-BG-6)	97.2	.	61.7	90.0	78.3	97.0	84.8
REBEL	95.5	91.7	57.5	91.5	91.7	80.0	84.6
WRANGLER	91.4	95.0	56.7	88.3	94.7	81.7	84.6
BEL 86-2	95.4	85.0	55.0	93.0	90.0	89.3	84.6
TRIDENT	97.2	78.3	50.8	89.8	93.3	97.7	84.5
ARID	96.8	86.7	56.7	89.0	88.3	89.3	84.5
BONANZA	96.8	83.3	59.2	93.2	83.3	91.0	84.5
ARRIBA (PST-5DM)	97.0	85.0	54.2	89.2	88.3	93.0	84.4
MAVERICK II (PICK GH6)	95.6	81.7	54.2	91.3	86.3	97.3	84.4
APACHE	94.6	86.7	46.7	91.3	96.0	90.7	84.3
MURIETTA (PST-5D7)	93.6	76.7	57.5	94.0	88.3	94.3	84.1
SAFARI (PST-5MW)	97.7	81.7	54.2	91.5	84.7	94.3	84.0
TRADITION (PST-DBC)	95.2	86.7	53.3	90.7	96.0	81.7	83.9
PACER	96.0	92.7	56.7	89.5	91.7	76.7	83.9

TABLE 15. PERCENT LIVING GROUND COVER (SUMMER)
 (continued) RATINGS OF TALL FESCUE CULTIVARS
 1988-91 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS							
NAME	AZ1	MI1	MO1	MO3	OK1	VA3	MEAN
AQUARA (SYN GA)	90.8	86.7	51.7	89.0	86.7	97.7	83.7
COCHISE (PICK 127)	91.8	81.7	59.2	92.2	81.7	96.0	83.7
AZTEC	96.7	81.7	55.0	90.5	83.3	94.7	83.6
BEL 86-1	91.6	80.0	53.3	88.2	94.7	94.0	83.6
TIP	87.7	91.7	54.2	87.3	93.0	86.7	83.4
ADVENTURE	93.4	86.0	49.2	89.0	88.3	94.3	83.4
WILLAMETTE	97.7	83.3	54.2	89.0	84.7	91.0	83.3
CAREFREE	94.6	88.3	55.8	89.8	86.0	85.0	83.3
RICHMOND	92.3	88.3	55.0	88.8	90.0	85.0	83.3
BRAHMA (LEGEND)	94.0	86.7	50.8	91.2	88.3	88.3	83.2
GUARDIAN (PICK 845FN)	96.7	76.7	53.3	91.5	88.3	92.7	83.2
EMPEROR (PICK SLD)	94.6	81.7	53.3	93.0	75.0	97.3	82.5
JB-2	91.9	88.3	49.2	89.8	94.7	80.0	82.3
AVANTI (PICK DM)	95.1	78.3	54.2	92.8	85.0	88.3	82.3
JAGUAR II	92.8	83.3	55.0	92.2	88.3	80.0	81.9
SILVERADO (PST-5BL)	96.7	76.7	55.0	90.8	81.7	89.3	81.7
WINCHESTER (PST-5F2)	95.7	78.3	56.7	90.5	78.0	90.7	81.6
CIMMARON	89.8	81.7	50.0	91.7	86.7	87.7	81.2
VEGAS (NORMARC 99)	95.4	76.7	61.7	89.2	68.3	91.3	80.4
SHORTSTOP (PICK DDF)	95.0	73.3	50.0	88.8	61.7	97.3	77.7
LSD VALUE	5.7	13.6	15.5	8.2	14.3	11.9	4.6

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).

TABLE 16. PERCENT LIVING GROUND COVER (FALL)
RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 1/						
NAME	AZ1	MO3	OK1	VA6	WA6	MEAN
THOROUGHbred	97.5	93.8	72.8	88.3	81.7	86.8
SHENANDOAH (PE-7E)	97.7	97.7	71.8	85.0	78.3	86.1
TRAILBLAZER	97.3	98.3	66.5	88.3	76.7	85.4
WRANGLER	95.3	96.8	67.0	82.0	83.3	84.9
AUSTIN (NORMARC 25)	97.7	99.0	68.8	85.0	73.3	84.8
PHOENIX (NORMARC 77)	95.7	98.3	64.7	96.0	68.3	84.6
REBEL II	97.0	98.3	66.3	90.3	70.0	84.4
TIP	95.1	93.8	64.7	81.7	85.0	84.1
MONARCH	95.9	99.0	66.2	80.0	78.3	83.9
KY-31	97.0	94.8	72.2	81.7	73.3	83.8
FINELAWN 5GL	95.1	94.8	68.8	87.7	71.7	83.6
OLYMPIC	97.7	97.5	68.8	81.7	71.7	83.5
PST-5AG	97.5	98.3	69.8	75.0	76.7	83.5
WINCHESTER (PST-5F2)	97.7	98.3	62.3	81.7	76.7	83.3
JAGUAR II	97.5	98.3	65.7	81.7	73.3	83.3
JB-2	97.0	95.5	67.0	83.3	73.3	83.2
TRADITION (PST-DBC)	97.7	97.0	70.3	76.7	73.3	83.0
PACER	96.7	96.8	66.3	85.0	70.0	83.0
MURIETTA (PST-5D7)	95.9	98.2	65.7	83.3	71.7	82.9
CAREFREE	97.7	96.2	59.0	78.3	83.3	82.9
MESA	96.7	96.2	69.5	80.0	71.7	82.8
BONANZA	96.9	98.3	62.2	86.7	68.3	82.5
PST-5EN	97.7	96.2	64.7	86.7	66.7	82.4
FALCON	95.4	95.3	69.8	76.7	73.3	82.1
TITAN	97.3	98.3	71.2	81.7	61.7	82.0
COCHISE (PICK 127)	96.1	99.0	58.3	75.0	81.7	82.0
WILLAMETTE	96.5	96.8	61.5	81.7	73.3	82.0
GUARDIAN (PICK 845PN)	97.5	96.0	65.5	78.3	71.7	81.8
PE-7	96.8	98.3	66.5	81.7	65.0	81.7
BARNONE (BAR FA 7851)	97.5	99.0	58.3	80.0	73.3	81.6
OLYMPIC II (PST-5OL)	96.2	96.2	65.7	81.7	68.3	81.6
CHIEFTAIN	97.7	97.0	69.7	79.7	63.3	81.5
TRIBUTE	97.0	97.7	68.8	83.3	60.0	81.4
SUNDANCE	97.0	93.3	64.8	78.3	73.3	81.4
FATIMA	97.7	92.3	66.5	83.3	66.7	81.3
PST-5AP	96.7	99.0	67.2	70.0	73.3	81.2
ELDORADO (PST-5D1)	97.2	94.5	62.3	80.0	71.7	81.1
JAGUAR	96.7	97.5	69.7	68.3	73.3	81.1
SAFARI (PST-5MW)	97.7	97.5	63.2	71.7	75.0	81.0
REBEL	96.3	96.0	65.5	81.7	65.0	80.9
BRAHMA (LEGEND)	96.6	94.5	64.0	76.7	71.7	80.7
TAURUS	97.2	95.5	64.0	81.7	65.0	80.7
ARRIBA (PST-5DM)	96.3	98.3	60.8	80.0	66.7	80.4
FINELAWN I	95.5	95.3	71.2	76.7	63.3	80.4
MAVERICK II (PICK GH6)	97.3	96.0	64.7	73.3	70.0	80.3

PERCENT LIVING GROUND COVER (FALL)
 RATINGS OF TALL FESCUE CULTIVARS
 1988-91 DATA

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS

NAME	AZ1	MO3	OK1	VA6	WA6	MEAN
APACHE	96.2	98.3	67.2	82.0	56.7	80.1
HUBBARD 87	97.7	97.5	63.0	81.7	60.0	80.0
CROSSFIRE (PICK TF9)	97.5	98.3	63.8	71.7	68.3	79.9
AVANTI (PICK DM)	97.3	98.3	57.3	81.7	65.0	79.9
SILVERADO (PST-5BL)	95.8	97.7	60.8	75.0	68.3	79.5
BEL 86-2	97.3	98.3	63.3	76.7	61.7	79.5
ARID	96.2	96.0	64.8	78.3	61.7	79.4
AMIGO (PST-5HF)	97.7	92.8	63.2	76.7	66.7	79.4
AZTEC	97.0	97.0	62.3	68.3	70.0	78.9
RICHMOND	96.9	97.5	66.5	75.0	58.3	78.8
TWILIGHT (KWS-BG-6)	97.2	91.7	51.7	83.3	70.0	78.8
VEGAS (NORMARC 99)	96.7	98.8	55.0	80.0	63.3	78.8
TRIDENT	96.8	97.7	62.3	81.7	53.3	78.4
ADVENTURE	96.7	96.2	65.5	68.3	65.0	78.3
CIMMARON	97.2	90.0	65.7	73.3	65.0	78.2
BEL 86-1	93.0	92.3	70.5	76.7	58.3	78.2
ANTHEM (KWS-DUR)	93.7	96.8	62.2	71.7	63.3	77.5
AQUARA (SYN GA)	96.0	96.0	55.0	76.7	63.3	77.4
SHORTSTOP (PICK DDF)	95.6	93.7	49.2	71.7	76.7	77.3
EMPEROR (PICK SLD)	96.2	95.3	52.5	61.7	60.0	73.1
LSD VALUE	3.0	3.9	35.9	16.3	20.5	8.9

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).

TABLE 17. FROST TOLERANCE RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

FROST TOLERANCE RATINGS 1-9; 9=NO INJURY 1/

NAME	VA3	MEAN
CROSSFIRE (PICK TF9)	7.7	7.7
MURIETTA (PST-5D7)	7.7	7.7
TWILIGHT (KWS-BG-6)	7.7	7.7
BARNONE (BAR FA 7851)	7.3	7.3
SILVERADO (PST-5BL)	7.3	7.3
ARRIBA (PST-5DM)	7.0	7.0
ELDORADO (PST-5D1)	7.0	7.0
EMPEROR (PICK SLD)	7.0	7.0
JAGUAR II	7.0	7.0
PACER	7.0	7.0
RICHMOND	7.0	7.0
WILLAMETTE	7.0	7.0
ANTHEM (KWS-DUR)	6.7	6.7
ARID	6.7	6.7
CAREFREE	6.7	6.7
COCHISE (PICK 127)	6.7	6.7
FATIMA	6.7	6.7
FINELAWN 5GL	6.7	6.7
FINELAWN I	6.7	6.7
MONARCH	6.7	6.7
PHOENIX (NORMARC 77)	6.7	6.7
PST-5EN	6.7	6.7
SAFARI (PST-5MW)	6.7	6.7
SHORTSTOP (PICK DDF)	6.7	6.7
THOROUGHbred	6.7	6.7
TRAILBLAZER	6.7	6.7
VEGAS (NORMARC 99)	6.7	6.7
WRANGLER	6.7	6.7
AMIGO (PST-5HF)	6.3	6.3
APACHE	6.3	6.3
AQUARA (SYN GA)	6.3	6.3
AUSTIN (NORMARC 25)	6.3	6.3
AZTEC	6.3	6.3
BEL 86-1	6.3	6.3
BONANZA	6.3	6.3
JAGUAR	6.3	6.3
PE-7	6.3	6.3
PST-5AG	6.3	6.3
SUNDANCE	6.3	6.3
TITAN	6.3	6.3
TRADITION (PST-DBC)	6.3	6.3
TRIBUTE	6.3	6.3
TRIDENT	6.3	6.3
WINCHESTER (PST-5F2)	6.3	6.3
BEL 86-2	6.0	6.0

FROST TOLERANCE RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

FROST TOLERANCE RATINGS 1-9; 9=NO INJURY

NAME	VA3	MEAN
CHIEFTAIN	6.0	6.0
CIMMARON	6.0	6.0
FALCON	6.0	6.0
GUARDIAN (PICK 845PN)	6.0	6.0
HUBBARD 87	6.0	6.0
KY-31	6.0	6.0
MAVERICK II (PICK GH6)	6.0	6.0
MESA	6.0	6.0
OLYMPIC II (PST-50L)	6.0	6.0
PST-5AP	6.0	6.0
REBEL II	6.0	6.0
SHENANDOAH (PE-7E)	6.0	6.0
TAURUS	6.0	6.0
TIP	6.0	6.0
AVANTI (PICK DM)	5.7	5.7
BRAHMA (LEGEND)	5.7	5.7
JB-2	5.7	5.7
ADVENTURE	5.3	5.3
OLYMPIC	5.3	5.3
REBEL	5.3	5.3
LSD VALUE	1.3	1.3

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

TABLE 18. DROUGHT TOLERANCE (RECOVERY) RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

DROUGHT TOLERANCE RATINGS 1-9; 9=COMPLETE RECOVERY 1/

NAME	OH2	MEAN
HUBBARD 87	6.3	6.3
PHOENIX (NORMARC 77)	6.0	6.0
ADVENTURE	5.7	5.7
CHIEFTAIN	5.7	5.7
GUARDIAN (PICK 845PN)	5.7	5.7
JAGUAR II	5.7	5.7
JB-2	5.7	5.7
MONARCH	5.7	5.7
SUNDANCE	5.7	5.7
WILLAMETTE	5.7	5.7
WINCHESTER (PST-5F2)	5.7	5.7
FALCON	5.3	5.3
KY-31	5.3	5.3
MESA	5.3	5.3
OLYMPIC	5.3	5.3
PE-7	5.3	5.3
REBEL	5.3	5.3
SAFARI (PST-5MW)	5.3	5.3
SHENANDOAH (PE-7E)	5.3	5.3
TRAILBLAZER	5.3	5.3
TRIDENT	5.3	5.3
VEGAS (NORMARC 99)	5.3	5.3
WRANGLER	5.3	5.3
AMIGO (PST-5HF)	5.0	5.0
ANTHEM (KWS-DUR)	5.0	5.0
AQUARA (SYN GA)	5.0	5.0
ARRIBA (PST-5DM)	5.0	5.0
AUSTIN (NORMARC 25)	5.0	5.0
AVANI (PICK DM)	5.0	5.0
AZTEC	5.0	5.0
BEL 86-1	5.0	5.0
BEL 86-2	5.0	5.0
BONANZA	5.0	5.0
BRAHMA (LEGEND)	5.0	5.0
CAREFREE	5.0	5.0
CIMMARON	5.0	5.0
COCHISE (PICK 127)	5.0	5.0
CROSSFIRE (PICK TF9)	5.0	5.0
ELDORADO (PST-5D1)	5.0	5.0
FATIMA	5.0	5.0
FINELAWN 5GL	5.0	5.0
FINELAWN I	5.0	5.0
JAGUAR	5.0	5.0
OLYMPIC II (PST-5OL)	5.0	5.0
PST-5AG	5.0	5.0

DROUGHT TOLERANCE (RECOVERY) RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

DROUGHT TOLERANCE RATINGS 1-9; 9=COMPLETE RECOVERY

NAME	OH2	MEAN
PST-5AP	5.0	5.0
REBEL II	5.0	5.0
TAURUS	5.0	5.0
THOROUGHBRED	5.0	5.0
TRADITION (PST-DBC)	5.0	5.0
TRIBUTE	5.0	5.0
APACHE	4.7	4.7
ARID	4.7	4.7
BARNONE (BAR FA 7851)	4.7	4.7
MURIETTA (PST-5D7)	4.7	4.7
PACER	4.7	4.7
PST-5EN	4.7	4.7
RICHMOND	4.7	4.7
SHORTSTOP (PICK DDF)	4.7	4.7
TITAN	4.7	4.7
TWILIGHT (KWS-BG-6)	4.7	4.7
EMPEROR (PICK SLD)	4.3	4.3
MAVERICK II (PICK GH6)	4.3	4.3
SILVERADO (PST-5BL)	4.3	4.3
TIP	4.3	4.3
LSD VALUE	0.9	0.9

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).

TABLE 19. FUSARIUM PATCH RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

FUSARIUM PATCH RATINGS 1-9; 9=NO DISEASE 1/

NAME	ID2	OR1	OR2	MEAN
BARNONE (BAR FA 7851)	7.0	5.7	5.3	6.0
APACHE	6.3	6.0	5.3	5.9
KY-31	7.3	4.0	6.3	5.9
AUSTIN (NORMARC 25)	6.7	5.7	5.0	5.8
THOROUGHbred	6.7	5.7	5.0	5.8
OLYMPIC	6.3	6.0	5.0	5.8
PHOENIX (NORMARC 77)	6.3	6.0	5.0	5.8
PST-5EN	6.0	6.0	5.0	5.7
OLYMPIC II (PST-5OL)	6.3	6.0	4.3	5.6
WINCHESTER (PST-5F2)	6.7	5.7	4.0	5.4
TIP	7.0	4.0	5.3	5.4
ADVENTURE	4.7	5.3	6.0	5.3
ARRIBA (PST-5DM)	5.3	6.0	4.7	5.3
FALCON	6.7	5.0	4.3	5.3
FINELAWN I	5.3	5.7	5.0	5.3
JAGUAR	4.7	6.0	5.3	5.3
TITAN	5.0	5.7	5.3	5.3
BEL 86-1	6.7	5.0	4.0	5.2
GUARDIAN (PICK 845FN)	5.7	5.7	4.3	5.2
HUBBARD 87	5.0	5.7	5.0	5.2
PE-7	6.7	5.3	3.7	5.2
RICHMOND	5.3	5.3	5.0	5.2
SUNDANCE	6.0	6.0	3.7	5.2
AVANTI (PICK DM)	5.3	5.0	5.3	5.2
VEGAS (NORMARC 99)	5.0	6.3	4.3	5.2
WILLAMETTE	6.7	4.7	4.0	5.1
BEL 86-2	5.3	5.3	4.7	5.1
CAREFREE	4.3	5.0	6.0	5.1
MONARCH	5.3	5.7	4.3	5.1
PACER	5.0	5.0	5.3	5.1
CIMMARON	6.0	5.0	4.0	5.0
COCHISE (PICK 127)	4.7	5.7	4.7	5.0
JAGUAR II	3.3	6.3	5.3	5.0
MESA	5.7	5.0	4.3	5.0
PST-5AP	4.7	5.7	4.7	5.0
SAFARI (PST-5MW)	4.7	6.0	4.3	5.0
TRIDENT	3.7	5.3	6.0	5.0
BONANZA	5.0	5.7	4.0	4.9
CHIEFTAIN	5.0	5.7	4.0	4.9
FINELAWN 5GL	4.0	6.0	4.7	4.9
REBEL	6.0	4.7	4.0	4.9
CROSSFIRE (PICK TF9)	5.3	5.3	4.0	4.9
AMIGO (PST-5HF)	3.7	6.3	4.3	4.8
AQUARA (SYN GA)	5.0	5.0	4.3	4.8
PST-5AG	3.7	6.3	4.3	4.8

FUSARIUM PATCH RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

FUSARIUM PATCH RATINGS 1-9; 9=NO DISEASE

NAME	ID2	OR1	OR2	MEAN
AZTEC	4.7	5.0	4.3	4.7
ELDORADO (PST-5D1)	4.7	5.7	3.7	4.7
JB-2	5.7	4.7	3.7	4.7
TRAILBLAZER	4.7	4.7	4.7	4.7
TRIBUTE	4.3	5.7	4.0	4.7
BRAHMA (LEGEND)	4.7	5.7	3.3	4.6
FATIMA	5.0	4.7	4.0	4.6
ANTHEM (KWS-DUR)	4.7	5.3	3.7	4.6
TAURUS	4.3	5.0	4.3	4.6
REBEL II	4.7	5.3	3.3	4.4
ARID	4.0	5.3	4.0	4.4
TRADITION (PST-DBC)	2.7	4.7	5.7	4.3
MAVERICK II (PICK GH6)	4.0	5.7	3.0	4.2
SHORTSTOP (PICK DDF)	2.7	5.0	5.0	4.2
TWILIGHT (KWS-BG-6)	5.7	4.0	3.0	4.2
SHENANDOAH (PE-7E)	4.0	5.0	3.3	4.1
WRANGLER	4.0	5.7	2.7	4.1
EMPEROR (PICK SLD)	3.3	5.0	3.7	4.0
SILVERADO (PST-5BL)	3.0	6.0	2.7	3.9
MURIETTA (PST-5D7)	2.3	4.0	2.7	3.0
LSD VALUE	2.4	1.0	1.9	1.1

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

TABLE 20. LEAF SPOT RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

LEAF SPOT RATINGS 1-9; 9=NO DISEASE 1/

NAME	NJ3	TX1	TX2	UB2	MEAN
JAGUAR	4.7	4.3	4.0	6.0	4.8
BARNONE (BAR FA 7851)	4.7	3.7	4.3	6.0	4.7
HUBBARD 87	5.3	3.3	4.7	5.3	4.7
AZTEC	4.7	3.7	4.0	6.0	4.6
SHENANDOAH (PE-7E)	6.0	3.3	3.3	5.7	4.6
AUSTIN (NORMARC 25)	5.3	3.7	4.0	5.3	4.6
JB-2	5.0	4.0	4.3	4.7	4.5
WRANGLER	5.0	3.7	4.0	5.3	4.5
AVANTI (PICK DM)	4.7	3.0	4.7	5.3	4.4
PE-7	5.0	3.0	4.0	5.7	4.4
TRAILBLAZER	5.7	3.3	4.0	4.7	4.4
JAGUAR II	5.0	4.3	3.7	4.7	4.4
WINCHESTER (PST-5F2)	5.0	4.0	3.3	5.0	4.3
ELDORADO (PST-5D1)	5.0	3.7	3.7	5.0	4.3
AMIGO (PST-5HF)	5.7	3.3	3.0	5.0	4.3
ANTHEM (KWS-DUR)	5.0	3.7	4.0	4.3	4.3
APACHE	5.0	3.3	3.7	5.0	4.3
BEL 86-2	4.7	3.3	4.0	5.0	4.3
BONANZA	5.7	3.0	3.0	5.3	4.3
CAREFREE	4.7	3.0	4.0	5.3	4.3
OLYMPIC II (PST-5OL)	4.7	3.3	3.7	5.3	4.3
PST-5AG	4.0	4.0	4.0	5.0	4.3
SAFARI (PST-5MW)	5.0	3.3	3.7	4.7	4.2
ADVENTURE	4.3	4.0	3.7	4.7	4.2
ARID	4.0	4.3	3.7	4.7	4.2
MAVERICK II (PICK GH6)	5.0	3.3	3.3	4.7	4.1
PHOENIX (NORMARC 77)	4.7	3.3	3.3	5.0	4.1
PST-5EN	5.3	3.0	3.0	5.0	4.1
REBEL II	5.0	3.3	3.7	4.3	4.1
SHORTSTOP (PICK DDF)	5.0	2.3	3.7	5.3	4.1
THOROUGHbred	4.3	3.3	3.7	5.0	4.1
TRADITION (PST-DBC)	5.0	2.7	3.7	5.0	4.1
CHIEFTAIN	5.0	3.3	3.0	4.7	4.0
CROSSFIRE (PICK TF9)	4.3	3.0	3.7	5.0	4.0
GUARDIAN (PICK 845PN)	4.3	2.7	3.7	5.3	4.0
PST-5AP	5.3	3.0	3.3	4.3	4.0
TRIBUTE	5.0	3.0	3.3	4.7	4.0
ARRIBA (PST-5DM)	6.3	3.3	2.7	3.7	4.0
FINELAWN 5GL	5.3	4.0	2.7	4.0	4.0
BRAHMA (LEGEND)	3.0	3.7	4.3	4.7	3.9
CIMMARON	4.7	3.3	3.3	4.3	3.9
FALCON	4.7	3.3	3.7	4.0	3.9
OLYMPIC	5.7	2.7	3.7	3.7	3.9
REBEL	2.7	4.3	3.7	5.0	3.9
VEGAS (NORMARC 99)	5.0	2.7	2.7	5.3	3.9

LEAF SPOT RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

LEAF SPOT RATINGS 1-9; 9=NO DISEASE

NAME	NJ3	TX1	TX2	UB2	MEAN
TIP	4.7	2.7	3.7	4.3	3.8
COCHISE (PICK 127)	5.0	2.3	2.7	5.0	3.8
PACER	3.7	3.0	4.0	4.3	3.8
RICHMOND	4.7	2.7	3.0	4.7	3.8
SUNDANCE	3.7	3.3	2.7	5.3	3.8
TWILIGHT (KWS-BG-6)	4.7	2.3	3.3	4.7	3.8
MURIETTA (PST-5D7)	4.7	2.7	3.0	4.3	3.7
TITAN	4.3	2.3	3.3	4.7	3.7
EMPEROR (PICK SLD)	3.3	3.3	3.0	4.7	3.6
BEL 86-1	4.3	2.3	3.3	4.3	3.6
MONARCH	4.0	3.0	3.0	4.3	3.6
MESA	3.7	2.3	3.0	5.0	3.5
SILVERADO (PST-5BL)	3.7	3.3	3.0	4.0	3.5
WILLAMETTE	4.3	3.3	2.0	4.3	3.5
AQUARA (SYN GA)	3.7	3.0	3.3	3.7	3.4
TAURUS	3.3	3.7	2.7	4.0	3.4
FINELAWN I	3.3	2.3	4.0	3.7	3.3
KY-31	4.0	3.3	2.7	2.7	3.2
TRIDENT	1.0	3.7	3.0	5.0	3.2
FATIMA	3.7	2.0	3.0	3.0	2.9
LSD VALUE	1.8	1.2	1.1	1.1	0.7

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).

TABLE 21. DOLLAR SPOT RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

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

NAME	OH2	MEAN
HUBBARD 87	6.7	6.7
MESA	6.7	6.7
AQUARA (SYN GA)	6.3	6.3
ARRIBA (PST-5DM)	6.3	6.3
CHIEFTAIN	6.3	6.3
CROSSFIRE (PICK TF9)	6.3	6.3
FALCON	6.3	6.3
FATIMA	6.3	6.3
FINELAWN 5GL	6.3	6.3
GUARDIAN (PICK 845PN)	6.3	6.3
JAGUAR	6.3	6.3
JAGUAR II	6.3	6.3
PE-7	6.3	6.3
PST-5AP	6.3	6.3
PST-5EN	6.3	6.3
REBEL	6.3	6.3
SHORTSTOP (PICK DDF)	6.3	6.3
SILVERADO (PST-5BL)	6.3	6.3
THOROUGHbred	6.3	6.3
WINCHESTER (PST-5F2)	6.3	6.3
ADVENTURE	6.0	6.0
ANTHEM (KWS-DUR)	6.0	6.0
CIMMARON	6.0	6.0
COCHISE (PICK 127)	6.0	6.0
KY-31	6.0	6.0
REBEL II	6.0	6.0
TITAN	6.0	6.0
WRANGLER	6.0	6.0
APACHE	5.7	5.7
ARID	5.7	5.7
AZTEC	5.7	5.7
BEL 86-1	5.7	5.7
BEL 86-2	5.7	5.7
BONANZA	5.7	5.7
EMPEROR (PICK SLD)	5.7	5.7
MAVERICK II (PICK GH6)	5.7	5.7
OLYMPIC II (PST-5OL)	5.7	5.7
PHOENIX (NORMARC 77)	5.7	5.7
PST-5AG	5.7	5.7
RICHMOND	5.7	5.7
TRADITION (PST-DBC)	5.7	5.7
TRIBUTE	5.7	5.7
AUSTIN (NORMARC 25)	5.3	5.3
AVANI (PICK DM)	5.3	5.3
BARNONE (BAR FA 7851)	5.3	5.3

DOLLAR SPOT RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE

NAME	OH2	MEAN
BRAHMA (LEGEND)	5.3	5.3
CAREFREE	5.3	5.3
OLYMPIC	5.3	5.3
PACER	5.3	5.3
SAFARI (PST-5MW)	5.3	5.3
SHENANDOAH (PE-7E)	5.3	5.3
TIP	5.3	5.3
TRAILBLAZER	5.3	5.3
TRIDENT	5.3	5.3
ELDCRADO (PST-5D1)	5.0	5.0
JB-2	5.0	5.0
MONARCH	5.0	5.0
SUNDANCE	5.0	5.0
TAURUS	5.0	5.0
VEGAS (NORMARC 99)	5.0	5.0
AMIGO (PST-5HF)	4.7	4.7
FINELAWN I	4.7	4.7
WILLAMETTE	4.7	4.7
MURIETTA (PST-5D7)	4.3	4.3
TWILIGHT (KWS-BG-6)	4.0	4.0
LSD VALUE	1.3	1.3

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).

TABLE 22.

BROWN PATCH RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

NAME	BROWN PATCH RATINGS 1-9; 9=NO DISEASE 1/													MEAN
	AR1	AZ1	GA1	IL2	IN1	NJ1	NJ3	OH2	UB1	VA1	VA3	VA4	VA6	
ARID	7.5	6.2	7.7	7.3	7.7	4.7	4.7	6.0	7.3	8.3	7.7	5.7	8.7	6.9
REBEL II	6.7	6.5	7.5	6.3	7.0	4.6	6.0	6.0	8.0	8.7	7.7	5.7	8.3	6.8
FALCON	5.5	6.4	7.8	7.0	8.7	4.6	5.7	6.3	8.0	8.3	7.1	6.2	7.0	6.8
TITAN	5.0	6.8	7.7	5.3	8.0	3.7	6.7	7.3	7.0	8.7	8.0	5.8	8.3	6.8
CROSSFIRE (PICK TF9)	6.5	6.3	8.0	5.3	8.3	3.6	5.0	6.3	7.7	8.7	7.3	6.8	7.7	6.7
GUARDIAN (PICK 845PN)	6.8	5.8	8.0	6.7	8.0	4.6	6.7	4.7	6.3	8.7	6.8	6.2	8.3	6.7
KY-31	4.7	6.8	5.8	7.3	8.7	4.9	5.3	6.0	8.0	8.0	7.9	5.0	9.0	6.7
PST-5EN	6.2	6.8	7.8	4.7	7.0	4.1	6.0	5.7	7.0	8.3	7.9	7.3	8.3	6.7
COCHISE (PICK 127)	6.3	6.0	7.8	7.0	6.7	4.7	6.0	5.7	7.0	9.0	7.4	5.7	7.7	6.7
MESA	6.0	6.0	6.8	5.7	7.7	3.7	5.3	6.3	8.3	8.7	7.4	7.2	7.7	6.7
TRIBUTE	5.5	6.0	7.8	4.3	7.3	4.4	5.7	6.3	8.3	9.0	8.0	5.8	8.0	6.7
MAVERICK II (PICK GH6)	5.2	6.7	7.3	7.0	6.3	4.1	5.3	6.0	7.7	8.7	7.0	6.7	8.3	6.6
RICHMOND	4.7	6.3	6.8	6.3	7.0	4.6	5.3	5.7	8.3	9.0	8.1	6.3	7.7	6.6
REBEL	5.8	6.0	7.3	6.3	8.0	4.0	6.3	6.0	8.7	8.7	7.7	5.2	6.0	6.6
JAGUAR	5.2	6.0	7.2	6.7	7.7	3.6	5.3	6.0	7.3	9.0	7.8	6.0	8.3	6.6
WINCHESTER (PST-5F2)	5.2	7.0	7.7	5.0	6.3	3.9	5.7	6.7	7.7	9.0	8.4	6.5	7.0	6.6
APACHE	7.3	6.7	7.5	4.0	7.3	3.4	5.7	6.0	7.7	8.7	8.0	5.5	7.7	6.6
VEGAS (NORMARC 99)	6.5	6.0	7.0	6.3	6.0	4.1	6.0	5.3	7.7	8.3	7.3	6.8	8.0	6.6
FATIMA	4.8	6.7	6.7	6.7	7.7	3.8	6.0	5.7	7.3	8.7	7.9	5.0	8.3	6.6
ARRIBA (PST-5DM)	5.0	6.2	7.8	5.7	7.7	4.0	5.7	6.0	8.0	8.0	6.9	6.2	8.0	6.5
ADVENTURE	5.0	6.2	7.5	6.0	7.0	4.2	5.7	6.0	8.0	7.7	7.7	5.7	8.3	6.5
PE-7	5.5	6.5	7.5	6.0	7.0	4.2	6.3	6.0	6.0	9.0	7.6	5.8	7.3	6.5
PACER	6.2	6.2	6.8	5.3	7.0	3.7	5.7	6.0	8.0	8.7	7.7	5.5	7.7	6.5
TRADITION (PST-DBC)	6.5	6.0	7.5	4.7	7.0	3.8	5.7	6.3	7.7	8.3	8.3	6.2	6.3	6.5
BEL 86-2	6.5	5.6	7.3	5.0	8.3	4.2	5.3	4.7	8.0	8.0	7.6	6.5	7.0	6.5
OLYMPIC II (PST-5OL)	6.3	6.5	7.5	5.0	6.3	4.0	5.3	5.7	8.0	9.0	7.3	5.3	7.7	6.5
SHEMANDOAH (PE-7E)	5.8	6.2	6.8	8.0	7.3	4.0	6.0	5.7	5.0	8.0	6.8	6.7	7.7	6.5
PST-5AP	5.5	6.7	7.4	5.3	6.7	4.0	6.0	6.0	7.3	8.0	7.0	6.2	7.7	6.4
THOROUGHbred	6.3	6.0	7.5	4.0	6.3	4.3	4.0	6.7	9.0	8.3	7.3	7.0	6.7	6.4
MONARCH	5.8	6.3	7.2	5.0	6.0	4.1	6.0	5.3	7.3	9.0	8.0	5.8	7.3	6.4
FINELAWN I	5.5	6.2	6.5	7.0	6.3	3.0	5.0	6.0	8.3	8.0	7.9	5.8	7.3	6.4
SHORTSTOP (PICK DDF)	5.7	6.5	7.0	7.0	6.0	2.6	6.0	5.7	6.3	8.7	7.0	5.2	9.0	6.4
AUSTIN (NORMARC 25)	4.7	6.3	7.3	.	7.7	4.0	5.7	5.3	6.3	8.7	7.6	5.5	7.0	6.3
JAGUAR II	5.3	6.0	7.7	4.3	8.0	3.9	5.3	5.0	8.3	8.7	7.3	6.0	6.3	6.3
BARNONE (BAR FA 7851)	5.5	6.7	7.8	.	6.7	3.8	6.0	6.7	6.7	7.7	6.6	4.8	6.7	6.3
PHOENIX (NORMARC 77)	4.3	6.2	7.6	4.7	6.7	4.4	5.7	5.7	8.0	8.7	7.1	5.3	7.3	6.3
TRIDENT	5.0	6.5	6.7	5.7	6.7	4.1	5.7	6.0	6.7	9.0	7.3	4.7	7.7	6.3
FINELAWN 5GL	5.5	6.2	7.2	3.0	7.3	3.0	4.0	5.7	8.7	9.0	8.3	6.0	7.7	6.3
AMIGO (PST-5HF)	7.0	5.7	7.3	5.0	6.0	3.3	5.7	5.7	7.0	8.3	8.1	5.7	6.7	6.3
SAFARI (PST-5MW)	4.3	6.5	7.3	4.0	7.0	4.2	5.3	5.3	5.7	8.7	8.7	6.2	8.0	6.2
OLYMPIC	6.2	6.3	7.2	3.7	6.7	3.0	5.3	5.7	7.3	9.0	7.9	5.2	7.7	6.2
JB-2	4.7	6.3	7.3	6.7	7.7	3.7	4.7	5.3	6.7	8.0	7.9	5.2	7.0	6.2
ELDORADO (PST-5D1)	4.8	6.3	6.8	5.3	6.3	4.6	5.7	5.7	6.7	9.0	7.2	4.8	7.7	6.2
WRANGLER	6.0	6.2	6.8	4.3	7.3	3.2	5.7	6.0	6.0	8.0	7.9	6.0	7.3	6.2
AQUARA (SYN GA)	5.7	6.3	7.2	6.0	7.0	3.3	4.7	5.7	7.0	8.3	7.3	5.5	6.3	6.2

TABLE 22. (continued)

BROWN PATCH RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

NAME	BROWN PATCH RATINGS 1-9; 9=NO DISEASE 1/													MEAN
	AR1	AZ1	GA1	IL2	IN1	NJ1	NJ3	OH2	UB1	VA1	VA3	VA4	VA6	
AVANTI (PICK DM)	4.3	5.6	7.5	3.7	6.7	4.2	5.7	6.3	6.3	8.3	7.6	6.7	7.3	6.2
SUNDANCE	4.2	6.2	6.7	3.3	7.3	4.6	6.3	5.3	6.0	8.7	7.2	5.7	8.7	6.2
ANTHEM (KWS-DUR)	5.0	6.7	7.5	5.3	7.0	3.4	6.0	6.3	5.0	8.3	7.2	5.5	6.7	6.2
CHIEFTAIN	4.7	5.5	7.3	3.0	5.7	3.8	6.3	6.0	7.3	8.0	8.3	6.7	7.3	6.1
CIMMARON	5.5	6.5	6.3	5.0	6.3	3.3	5.0	5.7	6.7	9.0	8.1	5.2	7.3	6.1
BONANZA	6.7	6.2	6.5	2.7	6.7	3.9	5.3	5.7	7.0	9.0	7.2	5.7	7.3	6.1
TIP	4.7	6.7	6.7	4.0	6.0	3.6	5.3	6.0	8.0	8.3	7.3	5.2	8.0	6.1
HUBBARD 87	5.2	6.0	7.8	4.0	8.7	4.3	4.7	6.0	4.7	9.0	6.6	6.3	6.3	6.1
SILVERADO (PST-5BL)	5.2	5.8	7.3	4.0	6.0	3.8	6.7	6.0	6.0	8.0	7.8	5.7	7.0	6.1
EMPEROR (PICK SLD)	4.5	6.5	7.8	6.0	6.3	3.2	5.3	6.3	5.0	8.3	7.2	4.8	7.3	6.1
WILLAMETTE	5.0	6.2	6.3	5.7	7.0	3.2	5.3	5.0	6.0	9.0	7.9	4.8	7.0	6.0
AZTEC	4.5	6.2	6.8	4.0	8.7	3.8	6.3	5.7	5.0	7.7	7.4	4.8	7.0	6.0
PST-5AG	5.7	6.0	7.0	4.7	6.7	3.0	5.3	5.3	5.3	8.3	6.7	6.0	6.3	5.9
CAREFREE	4.2	6.5	6.2	6.3	5.3	2.6	4.7	6.0	6.0	7.7	8.0	6.2	6.3	5.8
TAURUS	5.3	6.0	6.7	5.3	5.3	3.8	5.0	6.0	5.3	8.3	6.4	5.0	7.3	5.8
BEL 86-1	3.7	5.6	6.3	5.3	5.3	3.7	5.3	5.7	6.7	8.7	7.8	6.2	5.7	5.8
BRAHMA (LEGEND)	5.3	6.3	6.5	6.0	6.0	3.6	5.0	5.0	3.7	8.7	7.2	4.2	7.7	5.8
TWILIGHT (KWS-BG-6)	5.0	6.3	5.5	.	3.7	2.0	5.7	5.3	1.0	8.3	6.3	5.2	6.0	5.0
MURIETTA (PST-5D7)	4.0	6.2	6.6	3.3	4.0	1.6	5.3	4.0	3.3	7.0	7.6	5.0	6.3	4.9
TRAILBLAZER	4.3	6.5	5.7	3.3	5.0	2.4	5.0	3.3	2.0	7.0	6.3	5.0	5.7	4.7
LSD VALUE	1.4	1.4	1.3	3.1	1.9	1.2	1.6	1.8	2.9	1.2	1.8	1.7	1.9	0.5

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).

TABLE 23. PYTHIUM BLIGHT RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

PYTHIUM BLIGHT RATINGS 1-9; 9=NO DISEASE 1/

NAME	GA1	NJ3	MEAN
TAURUS	.	8.0	8.0
AUSTIN (NORMARC 25)	7.7	7.8	7.8
OLYMPIC II (PST-5OL)	7.7	7.5	7.6
BARNONE (BAR FA 7851)	8.0	7.0	7.5
FINELAWN I	8.0	7.0	7.5
PHOENIX (NORMARC 77)	.	7.5	7.5
TITAN	7.7	7.3	7.5
WILLAMETTE	7.7	7.3	7.5
TRIDENT	7.0	7.8	7.4
FALCON	7.3	7.3	7.3
FATIMA	7.0	7.5	7.3
SUNDANCE	7.0	7.5	7.3
SILVERADO (PST-5BL)	.	7.2	7.2
WRANGLER	.	7.2	7.2
EMPEROR (PICK SLD)	7.3	7.0	7.2
CIMMARON	7.0	7.2	7.1
AZTEC	.	7.0	7.0
CHIEFTAIN	7.3	6.7	7.0
THOROUGHBRED	.	7.0	7.0
TIP	.	7.0	7.0
MONARCH	7.7	6.2	6.9
ADVENTURE	7.3	6.5	6.9
ANTHEM (KWS-DUR)	8.0	5.8	6.9
PE-7	7.3	6.5	6.9
PST-5EN	7.0	6.8	6.9
RICHMOND	7.0	6.8	6.9
ARRIBA (PST-5DM)	7.7	6.0	6.8
SAFARI (PST-5MW)	6.7	7.0	6.8
ELDORADO (PST-5D1)	.	6.8	6.8
GUARDIAN (PICK 845PN)	.	6.8	6.8
JB-2	.	6.8	6.8
MAVERICK II (PICK GH6)	7.3	6.3	6.8
TRIBUTE	7.3	6.3	6.8
TWILIGHT (KWS-BG-6)	.	6.8	6.8
WINCHESTER (PST-5F2)	.	6.8	6.8
ARID	.	6.7	6.7
CROSSFIRE (PICK TF9)	.	6.7	6.7
KY-31	.	6.7	6.7
MURIETTA (PST-5D7)	.	6.7	6.7
SHORTSTOP (PICK DDF)	.	6.7	6.7
BEL 86-2	7.3	6.0	6.7
COCHISE (PICK 127)	6.0	7.3	6.7
JAGUAR	7.0	6.3	6.7
REBEL II	7.0	6.3	6.7
JAGUAR II	7.7	5.5	6.6

PYTHIUM BLIGHT RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

PYTHIUM BLIGHT RATINGS 1-9; 9=NO DISEASE

NAME	GA1	NJ3	MEAN
PACER	7.0	6.2	6.6
APACHE	6.3	6.8	6.6
AQUARA (SYN GA)	6.3	6.8	6.6
PST-5AG	6.3	6.8	6.6
AMIGO (PST-5HF)	6.3	6.7	6.5
BEL 86-1	.	6.5	6.5
MESA	.	6.5	6.5
OLYMPIC	6.0	7.0	6.5
PST-5AP	.	6.5	6.5
REBEL	6.3	6.7	6.5
SHENANDOAH (PE-7E)	7.0	6.0	6.5
FINELAWN 5GL	5.7	7.2	6.4
AVANTI (PICK DM)	7.0	5.7	6.3
BRAHMA (LEGEND)	5.3	7.3	6.3
HUBBARD 87	.	6.3	6.3
VEGAS (NORMARC 99)	.	6.3	6.3
TRADITION (PST-DBC)	5.7	6.8	6.3
TRAILBLAZER	.	5.8	5.8
BONANZA	.	5.7	5.7
CAREFREE	4.7	6.0	5.3
LSL VALUE	2.2	2.4	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).

TABLE 24. CHINCH BUG RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

CHINCH BUG RATINGS 1-9; 9=NO DAMAGE 1/

NAME	AZ1	MEAN
ADVENTURE	9.0	9.0
ARID	9.0	9.0
ARRIBA (PST-5DM)	9.0	9.0
AVANTI (PICK DM)	9.0	9.0
AZTEC	9.0	9.0
CHIEFTAIN	9.0	9.0
JAGUAR	9.0	9.0
KY-31	9.0	9.0
MESA	9.0	9.0
OLYMPIC II (PST-5OL)	9.0	9.0
PST-5AP	9.0	9.0
PST-5EN	9.0	9.0
SHORTSTOP (PICK DDF)	9.0	9.0
SUNDANCE	9.0	9.0
THOROUGHBRED	9.0	9.0
TRIDENT	9.0	9.0
TWILIGHT (KWS-BG-6)	9.0	9.0
WILLAMETTE	9.0	9.0
ANTHEM (KWS-DUR)	8.7	8.7
BARNONE (BAR FA 7851)	8.7	8.7
BONANZA	8.7	8.7
COCHISE (PICK 127)	8.7	8.7
OLYMPIC	8.7	8.7
REBEL	8.7	8.7
REBEL II	8.7	8.7
SAFARI (PST-5MW)	8.7	8.7
SILVERADO (PST-5BL)	8.7	8.7
TAURUS	8.7	8.7
TIP	8.7	8.7
TRADITION (PST-DBC)	8.7	8.7
TRAILBLAZER	8.7	8.7
WRANGLER	8.7	8.7
CAREFREE	8.3	8.3
EMPEROR (PICK SLD)	8.3	8.3
FATIMA	8.3	8.3
JB-2	8.3	8.3
MONARCH	8.3	8.3
MURIETTA (PST-5D7)	8.3	8.3
RICHMOND	8.3	8.3
VEGAS (NORMARC 99)	8.3	8.3
WINCHESTER (PST-5F2)	8.3	8.3
AQUARA (SYN GA)	8.0	8.0
CIMMARON	8.0	8.0
ELDORADO (PST-5D1)	8.0	8.0
FALCON	8.0	8.0

CHINCH BUG RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

CHINCH BUG RATINGS 1-9; 9=NO DAMAGE

NAME	AZ1	MEAN
JAGUAR II	8.0	8.0
SHENANDOAH (PE-7E)	8.0	8.0
TITAN	8.0	8.0
AUSTIN (NORMARC 25)	7.7	7.7
BEL 86-1	7.7	7.7
GUARDIAN (PICK 845PN)	7.7	7.7
HUBBARD 87	7.7	7.7
MAVERICK II (PICK GH6)	7.7	7.7
PE-7	7.7	7.7
PST-5AG	7.7	7.7
CROSSFIRE (PICK TF9)	7.3	7.3
PACER	7.3	7.3
TRIBUTE	7.3	7.3
AMIGO (PST-5HF)	7.0	7.0
BEL 86-2	7.0	7.0
BRAHMA (LEGEND)	7.0	7.0
FINELAWN I	7.0	7.0
APACHE	6.7	6.7
FINELAWN 5GL	6.7	6.7
PHOENIX (NORMARC 77)	6.3	6.3
LSD VALUE	2.1	2.1

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

TABLE 25. APHID RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

APHID RATINGS 1-9; 9=NO DAMAGE 1/				
NAME	TX1	TX2	MEAN	
TRIBUTE	7.3	6.3	6.8	
KY-31	7.7	5.0	6.3	
SHENANDOAH (PE-7E)	8.3	4.3	6.3	
WINCHESTER (PST-5F2)	8.0	4.3	6.2	
ARID	7.3	4.7	6.0	
MESA	6.0	5.7	5.8	
TRADITION (PST-DBC)	6.3	5.3	5.8	
VEGAS (NORMARC 99)	7.0	4.3	5.7	
BEL 86-2	6.3	4.7	5.5	
PST-5AP	6.7	4.3	5.5	
PACER	6.0	4.7	5.3	
PST-5AG	6.0	4.7	5.3	
WILLAMETTE	5.3	5.3	5.3	
APACHE	5.3	5.0	5.2	
ARRIBA (PST-5DM)	6.3	3.7	5.0	
GUARDIAN (PICK 845PN)	5.3	4.7	5.0	
OLYMPIC II (PST-5OL)	6.0	4.0	5.0	
REBEL	4.3	5.7	5.0	
FINELAWN 5GL	4.0	5.7	4.8	
MURIETTA (PST-5D7)	5.3	4.3	4.8	
AMIGO (PST-5HF)	4.0	5.3	4.7	
JAGUAR II	5.0	4.3	4.7	
TAURUS	5.3	4.0	4.7	
AVANTI (PICK DM)	5.0	4.0	4.5	
EMPEROR (PICK SLD)	5.0	4.0	4.5	
MONARCH	4.7	4.3	4.5	
AQUARA (SYN GA)	3.7	5.0	4.3	
HUBBARD 87	2.7	6.0	4.3	
SHORTSTOP (PICK DDF)	5.0	3.7	4.3	
THOROUGHBRED	3.7	5.0	4.3	
TRIDENT	4.3	4.3	4.3	
BRAHMA (LEGEND)	3.3	5.0	4.2	
COCHISE (PICK 127)	4.7	3.7	4.2	
ANTHEM (KWS-DUR)	4.3	4.0	4.2	
OLYMPIC	4.3	4.0	4.2	
ADVENTURE	4.3	3.7	4.0	
BARNONE (BAR FA 7851)	3.7	4.3	4.0	
JAGUAR	4.0	4.0	4.0	
AZTEC	3.0	4.7	3.8	
RICHMOND	3.0	4.7	3.8	
BEL 86-1	2.3	5.3	3.8	
FATIMA	4.0	3.7	3.8	
MAVERICK II (PICK GH6)	2.7	5.0	3.8	
PHOENIX (NORMARC 77)	4.0	3.7	3.8	
SAFARI (PST-5MW)	3.3	4.3	3.8	

APHID RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

APHID RATINGS 1-9; 9=NO DAMAGE

NAME	TX1	TX2	MEAN
TITAN	2.7	5.0	3.8
FINELAWN I	4.0	3.3	3.7
SILVERADO (PST-5BL)	3.0	4.3	3.7
TRAILBLAZER	3.0	4.3	3.7
BONANZA	4.0	3.0	3.5
CAREFREE	3.7	3.3	3.5
CROSSFIRE (PICK TF9)	3.0	4.0	3.5
WRANGLER	3.0	4.0	3.5
ELDORADO (PST-5D1)	3.0	3.7	3.3
REBEL II	3.0	3.7	3.3
AUSTIN (NORMARC 25)	2.3	4.0	3.2
PST-5EN	2.3	4.0	3.2
TIP	3.3	3.0	3.2
SUNDANCE	1.7	4.0	2.8
CHIEFTAIN	2.0	3.7	2.8
PE-7	2.0	3.3	2.7
CIMMARON	1.3	4.0	2.7
TWILIGHT (KWS-BG-6)	2.0	3.0	2.5
FALCON	1.3	3.3	2.3
JB-2	1.0	3.7	2.3
LSD VALUE	4.4	2.9	2.6

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).

TABLE 26. VERTICAL GROWTH RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

VERTICAL GROWTH RATINGS 1-9; 9=LEAST GROWTH 1/

NAME	OH2	VA3	WA4	MEAN
SHORTSTOP (PICK DDF)	5.7	7.3	7.7	6.9
AZTEC	6.3	7.7	6.3	6.8
COCHISE (PICK 127)	5.3	8.0	7.0	6.8
GUARDIAN (PICK 845PN)	6.2	7.3	6.7	6.7
SILVERADO (PST-5BL)	5.8	7.7	6.7	6.7
AMIGO (PST-5HF)	6.0	7.7	6.0	6.6
HUBBARD 87	5.0	8.0	6.7	6.6
VEGAS (NORMARC 99)	6.2	6.7	6.7	6.5
ANTHEM (KWS-DUR)	5.3	7.7	6.3	6.4
PE-7	5.2	7.3	6.7	6.4
MURIETTA (PST-5D7)	5.5	7.3	6.3	6.4
AUSTIN (NORMARC 25)	5.0	7.7	.	6.3
CHIEFTAIN	5.8	7.0	6.0	6.3
ARRIBA (PST-5DM)	4.7	7.7	6.3	6.2
BEL 86-1	5.0	7.0	6.7	6.2
MAVERICK II (PICK GH6)	5.7	6.7	6.3	6.2
MONARCH	5.7	7.3	5.7	6.2
TWILIGHT (KWS-BG-6)	5.7	6.7	6.3	6.2
CROSSFIRE (PICK TF9)	5.3	8.0	5.3	6.2
EMPEROR (PICK SLD)	5.3	7.3	6.0	6.2
PST-5AG	5.3	7.3	6.0	6.2
SAFARI (PST-5MW)	5.2	7.3	6.0	6.2
SHENANDOAH (PE-7E)	5.2	7.3	6.0	6.2
TRAILBLAZER	6.2	7.3	5.0	6.2
WRANGLER	5.2	7.3	6.0	6.2
ELDORADO (PST-5D1)	6.3	7.3	4.7	6.1
OLYMPIC II (PST-5OL)	5.5	7.0	5.7	6.1
TRADITION (PST-DBC)	4.5	6.7	6.7	5.9
BARNONE (BAR FA 7851)	5.5	7.0	5.3	5.9
BRAHMA (LEGEND)	5.5	7.0	5.3	5.9
JAGUAR II	5.8	7.0	5.0	5.9
SUNDANCE	4.8	6.7	6.3	5.9
AVANTI (PICK DM)	5.0	7.0	5.7	5.9
TRIBUTE	5.0	7.3	5.3	5.9
THOROUGHBRED	5.5	7.0	5.0	5.8
CIMMARON	4.7	7.0	5.7	5.8
APACHE	5.3	7.0	5.0	5.8
BEL 86-2	5.3	6.7	5.3	5.8
PHOENIX (NORMARC 77)	5.0	7.3	5.0	5.8
PST-5EN	5.0	6.3	6.0	5.8
TAURUS	4.3	7.0	6.0	5.8
BONANZA	5.2	7.0	5.0	5.7
MESA	4.7	6.3	6.0	5.7
OLYMPIC	4.8	7.0	4.7	5.5
PST-5AP	5.5	6.0	5.0	5.5

VERTICAL GROWTH RATINGS OF TALL FESCUE CULTIVARS
1988-91 DATA

VERTICAL GROWTH RATINGS 1-9; 9=LEAST GROWTH

NAME	OH2	VA3	WA4	MEAN
WINCHESTER (PST-5F2)	5.2	6.7	4.7	5.5
ARID	5.0	6.7	4.7	5.4
REBEL II	5.2	6.3	4.7	5.4
TRIDENT	5.5	5.3	5.3	5.4
JAGUAR	5.0	6.0	5.0	5.3
PACER	4.8	5.0	6.0	5.3
WILLAMETTE	4.8	6.3	4.7	5.3
AQUARA (SYN GA)	5.3	5.7	4.7	5.2
FALCON	5.2	5.7	4.7	5.2
FINELAWN 5GL	4.5	6.3	4.7	5.2
REBEL	5.0	6.0	4.3	5.1
ADVENTURE	5.0	6.3	3.7	5.0
TITAN	4.3	6.7	3.7	4.9
CAREFREE	4.8	5.3	4.3	4.8
FINELAWN I	4.8	4.7	5.0	4.8
JB-2	4.8	6.0	3.7	4.8
RICHMOND	4.5	5.0	4.3	4.6
FATIMA	4.0	5.3	3.3	4.2
TIP	4.0	5.0	3.7	4.2
KY-31	3.2	4.3	2.3	3.3
LSD VALUE	1.7	1.2	1.5	1.0

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).