

## **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.

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Executive Coordinator, NTEP Policy Committee - J. Jack Murray

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LOCATIONS SUBMITTING DATA FOR 1991

<u>State</u>	<u>Location</u>	<u>Code</u>
Alabama	Auburn University	AL1
California	Santa Clara	CA1
Illinois	Carbondale	IL1
Illinois	Urbana	IL2
Iowa	Ames	IA1
New Jersey	North Brunswick	NJ1
New Jersey	Martinsville	NJ3
Ontario	Guelph	ON1
Oregon	Halsey	OR3
Rhode Island	Kingston	RI1
Virginia	Blacksburg	VA1
Washington	Pullman	WA1
Washington	Spokane	WA2

1989 NATIONAL BENTGRASS TEST

(Greens-Native Soil)

Entries and Sponsors

<u>Entry No.</u>	<u>Name</u>	<u>Species</u>	<u>Sponsor</u>
1	BR 1518	A. castellana (dryland bent)	USGA Green Section
2	Carmen	creeping	Advanta Seeds West
3	Tracenta	colonial	Advanta Seeds West
4	Putter	creeping	Jacklin Seed Co.
5	SR 1020	creeping	Seed Research of Oregon
6	Providence	creeping	Seed Research of Oregon
7	Bardot	colonial	Barenbrug USA
8	Penncross	creeping	Tee-2-Green Corp.
9	Pennlinks	creeping	Tee-2-Green Corp.
10	Egmont	A. capillaris (browntop bent)	Olsen-Fennell Seed Co.
11	Normarc 101 (Regent)	creeping	Normarc Seed Company
12	Forbes 89-12 (PRO/CUP)	creeping	Forbes Seed & Grain
13	WVPB 89-D-15 (Lopez)	creeping	Finelawn Research Corp.
14	National	creeping	Pickseed West
15	88.CBE	creeping	International Seeds
16	88.CBL	creeping	International Seeds
17	Cobra	creeping	International Seeds
18	Emerald	creeping	International Seeds
19	Allure	colonial	Willamette Seed Co.

TABLE A.

 1991 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN  
 THE 1989 NATIONAL BENTGRASS (NATIVE SOIL - GREEN) 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
AL1	SANDY LOAM	4.6-5.5	61-150	0-150	2.1-3.0	FULL SUN	-	-
CA1	LOAM	6.1-6.5	61-150	0-150	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
IA1	SANDY CLAY LOAM	7.1-7.5	0-60	241-375	3.1-4.0	FULL SUN	0.0-0.5 (3/8")	TO PREVENT STRESS
IL1	SILTY CLAY AND CLAY	6.1-6.5	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
IL2	SILT LOAM AND SILT	-	-	-	2.1-3.0	FULL SUN	0.0-0.5 (1/4")	TO PREVENT STRESS
NJ1	LOAM	6.1-6.5	61-150	0-150	3.1-4.0	FULL SUN	0.0-0.5 (1/4")	TO PREVENT STRESS
NJ3	-	-	-	-	-	FULL SUN	0.0-0.5	TO PREVENT STRESS
ON1	SANDY LOAM	6.6-7.0	-	-	1.1-2.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
OR3	SILT LOAM AND SILT	4.6-5.5	61-150	0-150	5.1-6.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
RI1	SILT LOAM AND SILT	6.6-7.0	271-450	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
VA1	SILT LOAM AND SILT	6.1-6.5	61-150	241-375	3.1-4.0	FULL SUN	0.0-0.5	ONLY DURING SEVERE STRESS
WA1	SILT LOAM AND SILT	6.1-6.5	0-60	501+	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
WA2	LOAM	5.6-6.0	0-60	241-375	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS

## FUNGICIDE USE IN 1991 (SUBMITTED TO NTEP)

LOCATION	FUNGICIDE	RATE (OZ./1000 SQ. FT.)	DATE(S) OF APPLICATION
IL2	CHLOROTHALONIL	5.0	5/14, 5/29, 6/18
	CHLOROTHALONIL	3.0	7/1
	CHLOROTHALONIL	1.4	7/15
	CHLOROTHALONIL	6.0	8/20
	IPRODIONE	3.0	5/14, 5/29, 6/18
	IPRODIONE	2.0	7/15
	IPRODIONE	3.8	7/29
	IPRODIONE	4.0	8/20
	PROPAMOCARB	1.5	7/1
	PROPAMOCARB	2.0	7/29
	PROPAMOCARB	1.6	8/26
	PROPOCONAZOLE	2.0	7/1
	NJ1	IPRODIONE	4.0
RI1	CHLOROTHALONIL	11.0	7/5
	ANILAZINE	6.0	9/17, 11/13



TABLE B.

## LOCATIONS AND DATA COLLECTED IN 1991

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
AL1	X	X	X	X	X	X	X	X	X	X	X	X
CA1	X		X		X	X		X	X			
IA1					X	X	X	X				
IL1				X	X	X	X	X	X			
IL2				X	X		X	X		X		
NJ1				X	X	X	X					
NJ3				X	X	X		X	X	X	X	
ON1				X	X	X	X	X				
OR3	X	X	X	X	X	X	X	X	X	X	X	X
RI1				X	X	X	X	X	X	X	X	
VA1							X	X		X		
WA1				X		X	X		X	X		
WA2				X	X			X	X	X		

TABLE B. (CONTINUED)

## LOCATIONS AND DATA COLLECTED IN 1991

LOCATION	GENETIC COLOR RATING	SPRING GREENUP RATING	LEAF TEXTURE RATING	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	DOLLAR SPOT	BROWN PATCH	PYTHIUM BLIGHT
AL1										X		
CA1				X	X	X	X	X	X			
IA1												
IL1												X
IL2												
NJ1		X								X	X	
NJ3	X	X	X	X	X	X						
ON1	X				X							
OR3	X											
RI1										X		
VA1											X	
WA1												
WA2			X			X						

TABLE 1.

MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON A  
NATIVE SOIL GREEN AT THIRTEEN LOCATIONS IN THE U.S. AND CANADA  
1991 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 1/													
	AL1	CA1	IA1	IL1	IL2	NJ1	NJ3	ON1	OR3	RI1	VA1	WA1	WA2	MEAN
* PROVIDENCE	3.4	6.5	5.9	5.5	5.5	7.3	5.6	7.8	6.1	5.8	5.1	7.4	6.9	6.1
* FOREES 89-12 (PRO/CUP)	3.7	6.5	6.3	5.5	5.7	6.8	5.9	7.8	6.4	4.4	4.8	7.3	6.5	6.0
88.CBL	3.7	7.1	6.3	5.3	5.0	7.1	5.1	7.5	6.6	3.8	5.1	7.0	6.7	5.9
88.CBE	4.0	6.6	5.9	6.1	4.9	6.7	5.5	7.5	6.4	4.0	5.1	6.7	6.3	5.8
* PUTTER	3.3	6.4	5.9	5.3	5.5	6.0	5.1	8.3	5.8	5.1	4.9	6.6	6.4	5.7
* COBRA	3.7	6.6	6.0	5.4	5.4	6.7	4.9	7.5	6.0	4.3	5.2	6.8	6.2	5.7
* PENNLINKS	3.8	6.9	6.1	4.7	5.1	6.3	4.6	8.0	5.9	4.6	4.9	6.7	6.8	5.7
* WVPB 89-D-15 (LOPEZ)	3.7	6.7	6.3	5.1	5.5	6.8	5.5	7.5	5.6	3.8	4.6	6.8	6.4	5.7
* NORMARC 101 (REGENT)	3.6	6.3	6.2	5.1	5.1	6.5	5.3	7.8	5.6	4.7	5.2	6.5	6.1	5.7
* SR 1020	3.2	7.1	6.0	4.8	5.5	6.2	6.0	7.8	5.9	4.1	4.9	6.7	5.8	5.7
* PENNCROSS	3.9	6.2	6.8	5.1	5.3	6.2	5.3	7.5	5.3	3.8	4.7	6.5	6.1	5.6
* CARMEN	3.8	6.7	5.8	4.8	4.9	6.1	4.6	7.0	5.3	3.2	5.6	6.6	5.7	5.4
* EMERALD	3.5	5.4	5.7	4.7	5.0	4.5	4.0	7.3	5.4	2.8	4.1	5.6	5.7	4.9
* NATIONAL	3.6	5.3	5.5	5.0	4.5	4.3	4.5	7.4	4.3	3.6	4.4	5.5	5.9	4.9
* BARDOT	4.8	4.7	6.3	4.7	5.1	4.7	3.8	7.8	4.0	1.7	4.3	5.4	6.0	4.9
* TRACENTA	4.4	4.2	5.7	4.9	4.5	4.5	4.0	7.3	3.7	2.1	4.1	5.5	5.4	4.6
* EGMONT	4.9	5.2	4.6	3.3	4.5	4.1	3.2	7.7	3.5	3.4	4.9	5.2	4.6	4.6
ALLURE	4.7	4.6	4.2	3.9	4.0	3.0	2.6	7.3	3.4	2.0	4.2	4.3	5.4	4.1
BR 1518	4.6	3.4	4.2	4.3	3.1	2.4	2.7	6.5	2.4	2.0	3.8	3.7	2.9	3.6
LSD VALUE	0.5	0.7	0.8	1.2	0.7	0.8	0.9	0.5	0.5	0.6	1.0	1.0	0.6	0.2

\* 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 2. MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS FOR EACH MONTH GROWN ON A NATIVE SOIL GREEN AT THIRTEEN LOCATIONS IN THE U.S. & CANADA 1991 DATA

NAME	TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS 1/												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
PROVIDENCE	4.9	4.5	5.9	6.1	6.2	6.2	5.7	6.0	6.0	5.9	4.8	4.0	6.1
FORBES 89-12 (PRO/CUP)	5.9	5.3	6.2	5.7	6.0	6.2	5.6	5.8	6.1	5.5	4.5	4.5	6.0
88.CBL	5.3	5.3	6.7	5.7	6.0	5.8	5.2	5.9	5.8	5.5	4.8	4.5	5.9
88.CBE	5.6	5.0	6.2	5.8	5.7	5.9	5.5	5.7	5.7	5.6	4.8	4.8	5.8
FUTTER	5.1	4.3	5.6	5.4	5.8	5.9	5.4	5.8	5.9	5.5	4.9	4.2	5.7
COBRA	5.3	5.3	6.0	5.6	5.6	5.8	5.3	5.8	5.6	5.4	4.5	4.5	5.7
FENNLINKS	5.7	5.0	6.0	5.7	5.8	5.8	5.1	5.7	5.6	5.3	4.4	4.2	5.7
WVPB 89-D-15 (LOPEZ)	5.8	4.7	6.0	5.8	5.9	5.9	4.9	5.5	5.4	5.2	4.3	4.3	5.7
NORMARC 101 (REGENT)	5.2	4.5	5.8	5.5	5.7	5.7	5.3	5.6	5.4	5.5	4.8	4.2	5.7
SR 1020	5.7	4.7	6.4	5.3	5.8	5.8	5.0	5.5	5.6	5.5	4.8	4.2	5.7
FENNCROSS	5.7	5.0	5.9	5.6	5.6	5.7	5.1	5.4	5.1	5.1	4.5	4.2	5.6
CARMEN	5.3	4.3	5.8	5.3	5.4	5.4	4.9	5.2	5.1	5.0	4.0	4.3	5.4
EMERALD	5.1	4.7	5.1	4.6	4.9	4.9	4.6	5.2	4.8	4.4	3.7	4.3	4.9
NATIONAL	4.4	3.7	4.6	4.7	4.8	4.8	4.5	5.0	5.2	4.8	3.8	3.8	4.9
BARDOT	4.9	4.0	4.9	5.3	5.4	4.9	4.5	4.5	4.0	4.2	3.2	4.7	4.9
TRACENTA	4.9	4.0	4.0	5.1	5.0	4.6	4.3	4.2	4.0	3.9	3.5	4.5	4.6
EGMONT	5.2	4.2	5.2	5.0	4.8	4.5	4.4	4.4	3.8	4.0	3.3	3.7	4.6
ALLURE	4.9	3.7	4.9	4.6	4.3	3.9	3.7	4.2	3.5	3.6	2.9	4.2	4.1
HR 1518	4.9	3.2	4.0	3.8	3.7	3.1	3.4	3.6	3.3	3.2	2.8	3.7	3.6
LSD VALUE	1.1	1.2	1.0	0.8	0.7	0.7	1.0	0.8	1.0	0.9	1.0	1.5	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 3.

RANKING OF MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN  
ON A NATIVE SOIL GREEN AT THIRTEEN LOCATIONS IN THE U.S. & CANADA 1/  
1991 DATA

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

NAME	AL1	CA1	IA1	IL1	IL2	NJ1	NJ3	ON1	OR3	RI1	VA1	WA1	WA2	MEAN
PROVIDENCE	17.0	8.5	11.0	2.5	2.5	1.0	3.0	5.0	4	1	5.0	1.0	1.0	1
FORBES 89-12 (PRO/CUP)	11.5	8.5	3.5	2.5	1.0	3.0	2.0	5.0	2	5	11.0	2.0	4.0	2
88.CBL	11.5	1.0	3.5	6.0	11.5	2.0	8.5	10.5	1	10	5.0	3.0	3.0	3
88.CBE	6.0	6.5	11.0	1.0	14.0	5.5	4.5	10.5	3	8	5.0	7.0	7.0	4
PUTTER	18.0	10.0	11.0	5.0	4.5	12.0	8.5	1.0	8	2	8.0	9.5	5.5	5
COBRA	11.5	6.5	8.5	4.0	6.0	5.5	10.0	10.5	5	6	2.5	4.5	8.0	6
PENNLINKS	9.0	3.0	7.0	15.5	8.0	8.0	12.0	2.0	7	4	8.0	7.0	2.0	7
WVPB 89-D-15 (LOPEZ)	11.5	4.0	3.5	7.0	4.5	4.0	4.5	10.5	9	11	13.0	4.5	5.5	8
NORMARC 101 (REGENT)	14.0	11.0	6.0	8.5	9.5	7.0	6.5	5.0	10	3	2.5	11.0	10.0	9
SR 1020	19.0	2.0	8.5	12.0	2.5	9.5	1.0	5.0	6	7	8.0	7.0	13.0	10
PENNCROSS	7.0	12.0	1.0	8.5	7.0	9.5	6.5	13.0	12	9	12.0	12.0	9.0	11
CARMEN	8.0	5.0	13.0	13.0	13.0	11.0	11.0	18.0	13	14	1.0	9.5	14.0	12
EMERALD	16.0	13.0	14.5	15.5	11.5	14.5	14.0	15.0	11	15	18.0	13.0	15.0	13
NATIONAL	15.0	14.0	16.0	10.0	15.0	16.0	13.0	14.0	14	12	14.0	15.0	12.0	14
BARDOT	2.0	16.0	3.5	14.0	9.5	13.0	16.0	5.0	15	19	15.0	16.0	11.0	15
TRACENTA	5.0	18.0	14.5	11.0	16.5	14.5	15.0	17.0	16	16	17.0	14.0	17.0	16
EGMONT	1.0	15.0	17.0	19.0	16.5	17.0	17.0	8.0	17	13	10.0	17.0	18.0	17
ALLURE	3.0	17.0	18.5	18.0	18.0	18.0	19.0	16.0	18	17	16.0	18.0	16.0	18
BR 1518	4.0	19.0	18.5	17.0	19.0	19.0	18.0	19.0	19	18	19.0	19.0	19.0	19

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. SPRING GREENUP RATINGS OF BENIGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

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

NAME	NJ1	NJ3	MEAN
BARDOT	8.0	6.0	7.0
ALLURE	8.0	5.7	6.8
EGMONT	8.0	5.7	6.8
TRACENTA	8.0	5.7	6.8
BR 1518	8.0	4.7	6.3
NATIONAL	6.7	5.0	5.8
EMERALD	6.3	4.0	5.2
NORMARC 101 (REGENT)	4.7	5.0	4.8
PROVIDENCE	4.3	4.7	4.5
PUTTER	4.3	4.7	4.5
88.CBL	3.0	5.7	4.3
88.CBE	3.3	5.3	4.3
PENNLINKS	4.3	4.3	4.3
WVPB 89-D-15 (LOPEZ)	3.7	5.0	4.3
PENNCROSS	3.0	4.7	3.8
COBRA	3.3	4.3	3.8
SR 1020	2.3	5.3	3.8
FORBES 89-12 (PRO/CUP)	2.3	4.0	3.2
CARMEN	2.0	3.7	2.8
LSD VALUE	1.0	1.3	0.8

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

TABLE 5. GENETIC COLOR RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN 1/				
NAME	NJ3	ON1	OR3	MEAN
88.CBE	6.0	7.3	8.0	7.1
88.CBL	6.0	7.3	8.0	7.1
FORBES 89-12 (PRO/CUP)	5.7	7.3	7.7	6.9
WVPB 89-D-15 (LOPEZ)	5.3	6.3	7.3	6.3
PROVIDENCE	5.7	5.0	7.7	6.1
COBRA	5.7	5.0	7.3	6.0
NORMARC 101 (REGENT)	5.0	5.3	7.0	5.8
PENNCROSS	5.3	5.0	7.0	5.8
PENNLINKS	5.0	4.7	7.0	5.6
SR 1020	6.0	3.7	6.7	5.4
PUTTER	5.3	3.3	7.0	5.2
TRACENTA	4.3	4.0	6.7	5.0
CARMEN	5.0	2.3	6.7	4.7
BR 1518	3.3	3.0	7.0	4.4
BARDOT	4.0	2.7	6.0	4.2
NATIONAL	4.7	1.7	6.0	4.1
EGMONT	3.3	2.7	6.0	4.0
EMERALD	3.7	2.3	6.0	4.0
ALLURE	2.7	1.3	6.0	3.3
LSD VALUE	0.9	1.6	0.6	0.6

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 6. LEAF TEXTURE RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 1/

NAME	NJ3	WA2	MEAN
BARDOT	5.7	8.7	7.2
EGMONT	5.7	8.0	6.8
TRACENTA	5.3	8.3	6.8
SR 1020	6.0	7.3	6.7
PROVIDENCE	5.7	7.3	6.5
PUTTER	5.7	7.3	6.5
88.CBE	6.0	6.7	6.3
FORBES 89-12 (PRO/CUP)	5.7	7.0	6.3
NORMARC 101 (REGENT)	5.7	7.0	6.3
PENNLINKS	5.3	7.3	6.3
ALLURE	4.7	7.7	6.2
WVPB 89-D-15 (LOPEZ)	5.7	6.7	6.2
88.CBL	5.3	7.0	6.2
CARMEN	5.0	7.3	6.2
NATIONAL	5.0	7.3	6.2
COBRA	5.3	6.7	6.0
EMERALD	4.7	6.0	5.3
PENNCROSS	5.3	5.3	5.3
BR 1518	3.7	2.3	3.0
LSD VALUE	0.9	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 7. SPRING DENSITY RATINGS OF BENIGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

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

NAME	CA1	NJ3	MEAN
PROVIDENCE	7.3	7.3	7.3
FORBES 89-12 (PRO/CUP)	7.0	7.3	7.2
SR 1020	7.0	7.0	7.0
WVPB 89-D-15 (LOPEZ)	6.7	6.7	6.7
NORMARC 101 (REGENT)	6.3	7.0	6.7
88.CBE	6.7	6.3	6.5
PUTTER	6.7	6.3	6.5
88.CBL	6.7	6.0	6.3
CARMEN	6.7	5.7	6.2
PENNCROSS	6.3	6.0	6.2
COBRA	6.7	5.3	6.0
EGMONT	6.0	5.7	5.8
PENNLINKS	6.7	5.0	5.8
BARDOT	5.7	5.7	5.7
EMERALD	5.3	5.0	5.2
NATIONAL	5.0	5.0	5.0
TRACENTA	4.7	5.0	4.8
ALLURE	4.7	3.7	4.2
BR 1518	3.7	3.0	3.3
LSD VALUE	1.0	1.8	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 8. SUMMER DENSITY RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 1/				
NAME	CA1	NJ3	ON1	MEAN
88.CBL	8.0	6.3	9.0	7.8
FORBES 89-12 (PRO/CUP)	8.0	6.3	9.0	7.8
88.CBE	8.0	5.7	9.0	7.6
PROVIDENCE	8.0	5.7	8.7	7.4
NATIONAL	8.0	5.0	9.0	7.3
NORMARC 101 (REGENT)	8.0	5.0	9.0	7.3
PENNCROSS	8.0	5.0	9.0	7.3
COBRA	7.7	5.0	9.0	7.2
PUTTER	7.7	5.0	9.0	7.2
SR 1020	8.0	5.7	8.0	7.2
WVPB 89-D-15 (LOPEZ)	8.0	5.0	8.7	7.2
EMERALD	8.0	4.0	9.0	7.0
CARMEN	8.0	4.7	8.0	6.9
PENNLINKS	7.7	4.3	8.7	6.9
EGMONT	7.0	4.0	9.0	6.7
BARDOT	6.3	3.3	8.3	6.0
ALLURE	6.3	2.0	8.7	5.7
TRACENTA	5.7	3.0	8.3	5.7
BR 1518	4.7	2.0	8.7	5.1
LSD VALUE	0.9	1.1	0.7	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 9. FALL DENSITY RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

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

NAME	CA1	NJ3	WA2	MEAN
FORBES 89-12 (PRO/CUP)	7.7	7.0	9.0	7.9
SR 1020	8.0	7.0	8.7	7.9
PROVIDENCE	7.7	6.0	9.0	7.6
88.CBE	7.3	6.3	9.0	7.6
88.CBL	7.3	6.3	9.0	7.6
NORMARC 101 (REGENT)	7.7	6.0	8.7	7.4
PENNLINKS	7.7	5.7	9.0	7.4
COBRA	7.7	5.7	8.7	7.3
WVPB 89-D-15 (LOPEZ)	7.3	6.0	8.7	7.3
PENNCROSS	7.3	6.0	8.3	7.2
CARMEN	7.7	5.0	8.3	7.0
NATIONAL	6.0	5.7	8.7	6.8
EMERALD	7.0	5.3	7.7	6.7
PUTTER	7.3	5.0	7.7	6.7
BARDOT	6.7	5.0	8.0	6.6
TRACENTA	6.7	3.7	8.0	6.1
EGMONT	7.7	3.3	7.3	6.1
ALLURE	7.0	3.0	7.7	5.9
BR 1518	6.7	3.0	6.7	5.4
LSD VALUE	0.8	1.3	1.5	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 10. PERCENT LIVING GROUND COVER (SPRING) RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 1/

NAME	CA1	MEAN
88.CBE	99.0	99.0
88.CBL	99.0	99.0
ALLURE	99.0	99.0
CARMEN	99.0	99.0
COBRA	99.0	99.0
EGMONT	99.0	99.0
EMERALD	99.0	99.0
FORBES 89-12 (PRO/CUP)	99.0	99.0
PENNCROSS	99.0	99.0
PENNLINKS	99.0	99.0
SR 1020	99.0	99.0
NATIONAL	97.7	97.7
NORMARC 101 (REGENT)	96.0	96.0
PROVIDENCE	96.0	96.0
PUTTER	96.0	96.0
WVPB 89-D-15 (LOPEZ)	96.0	96.0
BARDOT	95.0	95.0
TRACENTA	94.3	94.3
BR 1518	91.3	91.3
LSD VALUE	5.6	5.6

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

TABLE 11. PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 1/

NAME	CA1	MEAN
88.CBE	99.0	99.0
88.CBL	99.0	99.0
ALLURE	99.0	99.0
CARMEN	99.0	99.0
COBRA	99.0	99.0
EGMONT	99.0	99.0
EMERALD	99.0	99.0
FORBES 89-12 (PRO/CUP)	99.0	99.0
NATIONAL	99.0	99.0
NORMARC 101 (REGENT)	99.0	99.0
PENNCROSS	99.0	99.0
PENNLINKS	99.0	99.0
PROVIDENCE	99.0	99.0
PUTTER	99.0	99.0
SR 1020	99.0	99.0
WVPB 89-D-15 (LOPEZ)	99.0	99.0
BARDOT	97.7	97.7
TRACENTA	97.7	97.7
BR 1518	96.3	96.3
LSD VALUE	1.5	1.5

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 12. PERCENT LIVING GROUND COVER (FALL) RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 1/			
NAME	CA1	MEAN	
88.CBL	96.3	96.3	
NORMARC 101 (REGENT)	96.0	96.0	
SR 1020	96.0	96.0	
COBRA	94.7	94.7	
WVPB 89-D-15 (LOPEZ)	94.7	94.7	
CARMEN	94.3	94.3	
FORBES 89-12 (PRO/CUP)	94.3	94.3	
EGMONT	93.3	93.3	
EMERALD	93.3	93.3	
NATIONAL	93.3	93.3	
PENNLINKS	93.0	93.0	
88.CBE	92.7	92.7	
ALLURE	91.7	91.7	
PENNCROSS	90.0	90.0	
PUTTER	88.3	88.3	
BARDOF	84.7	84.7	
PROVIDENCE	83.3	83.3	
TRACENTA	83.3	83.3	
BR 1518	76.7	76.7	
LSD VALUE	12.7	12.7	

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 13. DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

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

NAME	AL1	NJ1	RI1	MEAN
EGMONT	7.7	8.0	9.0	8.2
ALLURE	7.3	7.0	7.7	7.3
BR 1518	8.3	6.7	7.0	7.3
BARDOT	6.0	7.3	8.0	7.1
TRACENTA	6.3	7.0	7.0	6.8
PROVIDENCE	5.0	5.7	7.3	6.0
88.CBE	5.3	5.7	6.7	5.9
NATIONAL	5.7	5.3	6.7	5.9
NORMARC 101 (REGENT)	4.7	5.3	7.3	5.8
PENNCROSS	5.3	4.0	8.0	5.8
88.CBL	5.7	5.0	6.3	5.7
EMERALD	5.0	5.7	6.3	5.7
COBRA	5.3	4.7	6.7	5.6
PENNLINKS	5.0	4.3	7.3	5.6
PUTTER	4.0	4.7	7.0	5.2
WVPB 89-D-15 (LOPEZ)	5.0	4.3	6.3	5.2
CARMEN	5.3	3.0	5.0	4.4
FORBES 89-12 (PRO/CUP)	4.7	2.7	5.7	4.3
SR 1020	2.7	3.3	5.3	3.8
LSD VALUE	1.5	2.1	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 14. BROWN PATCH RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

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

NAME	NJ1	VA1	MEAN
TRACENTA	3.3	8.7	6.0
BARDOT	2.3	9.0	5.7
PUTTER	5.7	5.0	5.3
SR 1020	5.3	5.0	5.2
88.CBL	7.0	3.0	5.0
PROVIDENCE	7.0	3.0	5.0
EMERALD	6.0	3.7	4.8
NORMARC 101 (REGENT)	6.3	3.3	4.8
PENNCROSS	7.0	2.7	4.8
CARMEN	5.0	4.0	4.5
EGMONT	2.0	7.0	4.5
88.CBE	6.3	2.3	4.3
WVPB 89-D-15 (LOPEZ)	6.3	2.3	4.3
ALLURE	1.7	6.7	4.2
PENNLINKS	6.0	2.3	4.2
FORBES 89-12 (PRO/CUP)	5.7	2.3	4.0
NATIONAL	4.7	2.7	3.7
COBRA	5.3	2.0	3.7
BR 1518	2.7	4.0	3.3
LSD VALUE	1.4	3.2	1.8

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

TABLE 15. PYTHIUM BLIGHT RATINGS OF BENTGRASS CULTIVARS  
GROWN ON A NATIVE SOIL GREEN  
1991 DATA

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

NAME	IL1	MEAN
88.CBE	6.0	6.0
BR 1518	4.3	4.3
COBRA	4.3	4.3
EMERALD	4.3	4.3
FORBES 89-12 (PRO/CUP)	4.3	4.3
PUTTER	4.3	4.3
TRACENTA	4.0	4.0
88.CBL	3.7	3.7
NATIONAL	3.7	3.7
BARDOT	3.3	3.3
NORMARC 101 (REGENT)	3.3	3.3
PENNCROSS	3.3	3.3
PROVIDENCE	3.3	3.3
ALLURE	3.0	3.0
CARMEN	3.0	3.0
SR 1020	3.0	3.0
WVPB 89-D-15 (LOPEZ)	3.0	3.0
PENNLINKS	2.7	2.7
EGMONT	2.0	2.0
LSD VALUE	2.2	2.2

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).