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# **ON-SITE TESTING OF GRASSES FOR OVERSEEDING OF BERMUDAGRASS FAIRWAYS**

## **INTRODUCTION**

With the initiation of on-site testing of bentgrass and bermudagrass on putting greens, interest is now increasing for the evaluation of other grasses used on golf courses. Grasses are needed that provide exceptional playing surfaces with less pesticides, fertilizer and water. Therefore, grasses that have superior drought, cold, heat, disease and insect resistance need to be identified.

Overseeding bermudagrass fairways is a common practice throughout the southern half of the United States. Millions of pounds of seed are bought and sown each autumn on golf courses in this region. Golf course owners, managers and superintendents seek grasses that establish quickly, exhibit exceptional playability, are aesthetically pleasing and require less inputs. This project evaluates new and established cultivars on bermudagrass fairways at golf courses in the Southern and Western U.S. This on-site testing program will provide scientific information of a more applied nature about cultivars for overseeding.

Information from this project is valuable to the golfing industry because it will determine the adaptation of grasses for golf course use. Information obtained from on-site testing will be of particular value to plant breeders, researchers, extension educators, USGA agronomists, golf course architects, and superintendents who need to select the best adapted cultivars for overseeding in a particular regional climate.

### **Location and Number of Trial Sites**

This evaluation trial is jointly sponsored by the Golf Course Superintendents Association of America (GCSAA), the United States Golf Association (USGA) Green Section and the National Turfgrass Evaluation Program (NTEP). Trial sites are located on golf courses near a land grant university with a turfgrass research program or in a major metropolitan area which is readily accessible to a university turfgrass scientist. Ten evaluation trial sites have been established. Trials are located on active play sites where golfers hit fairway golf shots and/or drive golf carts. Host clubs provide daily maintenance of the fairway site.

### **Trial Specifics**

The NTEP functions as the coordinating agent for the cultivar trials. These trials are two years in duration, established in fall 1999 and again in fall 2000. Trials are conducted under mutually agreed upon guidelines, procedures, and funding outlined in a research agreement agreed to and signed by the appropriate representatives of GCSAA, USGA, and NTEP and each research cooperator (i.e. university turfgrass researcher). Trials are conducted at each location under the leadership of the assigned research cooperator. These persons are responsible for establishing and conducting the trial, and collecting and transferring the data to NTEP according to the research agreement.

Trials are maintained by the golf course superintendent at each location using management procedures common to their golf course, the geographical area and in consultation with the research cooperator. No special management practices are prescribed as these trials are intended to receive real-world golf course conditions and stresses.

## **ON-SITE TESTING (continued)**

This trial is conducted principally with named cultivars and commercially available blends or mixtures. Various species used in overseeding, such as perennial ryegrass and *poa trivialis* have been allowed. Experimental lines that will be released in the immediate future (i.e. before the end of the testing cycle) were also included in this trial at the sponsoring company's discretion.

The research cooperator is responsible for data collection. The following data has been collected from each trial:

1. Percent establishment rate (4-6 weeks after seeding)
2. Turfgrass quality (monthly during winter, 2 - 4 times per month during the spring and fall transition period)
3. Plot color, genetic color (twice - late fall/early winter and spring)
4. Rate or speed of transition from bermudagrass to overseeded grass in fall (2 - 4 times per month during fall)
5. Rate or speed of transition from overseeded grass to bermudagrass in spring (2 - 4 times per month during spring)
6. Environmental stress, traffic and divoting damage, disease and insect damage and other data deemed appropriate and feasible by the research cooperator.

## **Administration**

The NTEP administers the program and its funding, sets the advisory committee and gathers their input and recommendations for each species trial. The NTEP organizes and distribute the seed which constitute the entries for each trial location. The NTEP provides the data collection protocols to each site; collects, analyzes and disseminates the performance data in annual and final reports; and conducts an annual site visit for each trial.

For more information or additional copies of reports, please contact:

Kevin Morris, Executive Director  
National Turfgrass Evaluation Program  
Beltsville Agricultural Research Center-West  
Building 001, Room 245  
Beltsville, Maryland 20705 USA

*NTEP reports can also be found on the World Wide Web at <http://www.ntep.org>.*

## TRIAL LOCATIONS - ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAYS

*Sponsored by USGA, GCSAA and NTEP*

<b>Location</b>	<b>Golf Course</b>	<b>Superintendent</b>	<b>Research Cooperator</b>	<b>University/Institution</b>
Tucson, AZ	Tucson Country Club	Marty Wells	Dr. David Kopec	Arizona
Palm Desert, CA	Mountain Vista	Nancy Dickens	Dr. Robert Green Mike Henry Jeff Place	California-Riverside Univ. of California Coop. Ext. College of the Desert, Palm Desert, CA
Orlando, FL	Grand Cypress	Tom Alex	Dr. Al Dudeck	Florida
Duluth (Atlanta), GA	Atlanta Athletic Club	Ken Mangum	Dr. Gil Landry	Georgia
Starkville, MS	Mississippi State Univ.	Pat Sneed	Dr. Jeff Krans	Mississippi State
Crescent (St. Louis), MO	Players Club at St. Louis	Todd Marquette	Dr. Erik Ervin	Missouri
Myrtle Beach, SC	Blackmoor	Bob Zuercher	Dr. Bruce Martin	Clemson
Garland (Dallas), TX	Fire Wheel Golf Park	Gary Chambers	Dr. Milt Engelke	Texas A&M-Dallas
The Woodlands, TX (Houston)	The Woodlands	Scott Hamilton, Gant Austin	Dr. Richard White	Texas A&M-College Station
Charlottesville, VA	Glenmore Country Club	Tim Thomas	Dr. David Chalmers	Virginia Tech

## ON-SITE TESTING OF GRASSES FOR OVERSEEDING OF BERMUDAGRASS FAIRWAYS

Entry #Name	Species or composition	Sponsor
1 Allsport	perennial ryegrass	LESCO, Inc.
2 LS-DE1	33% ProSport, 33% 6011, 33% Wilmington p. ryegrass blend	LESCO, Inc.
3 Proam	poa trivialis	LESCO, Inc.
4 Barlennium	perennial ryegrass	Barenbrug USA
5 Pirouette	perennial ryegrass	Barenbrug USA
6 Bariviera	poa trivialis	Barenbrug USA
7 Professional's Select	40% Windstar, 35% Sonata, 25% Jet p. ryegrass blend	Pennington Seed, Inc.
8 Transist	intermediate ryegrass	Pickseed West, Inc.
9 Pick HR A-97	intermediate ryegrass	Pickseed West, Inc.
10 First Cut	85% Paragon p. rye, 15% Stardust poa trivialis	Turf Merchants, Inc.
11 Brightstar II	perennial ryegrass	Turf-Seed, Inc.
12 Charger II	perennial ryegrass	Turf-Seed, Inc.
13 Citation III	perennial ryegrass	Turf-Seed, Inc.
14 Brightstar II + Winterplay	85% Brightstar II p. rye, 15% Winterplay poa trivialis	Turf-Seed, Inc.
15 Charger	perennial ryegrass	Standard Entry
16 Citation III + Winterstar	85% Citation III p. rye, 15% Winterstar poa trivialis	Turf-Seed, Inc.
17 Winterplay	poa trivialis	Standard Entry
18 ABT-99-3.268	annual ryegrass	AgriBioTech, Inc.
19 Paragon	perennial ryegrass	Turf Merchants, Inc.
20 Quick Trans. (ST-3BK-99)	perennial ryegrass	Pure-Seed Testing, Inc.
21 Fiesta 3	perennial ryegrass	Pickseed West, Inc.
22 Futura 2500	33% Cutter p. rye, 33% Sunshine p. rye, 33% Transist intermediate rye	Pickseed West, Inc.
23 MED-007	25% JR-151, 25% JR-142, 25% JR-128, 25% JR-265 p. ryegrass blend	Simplot Turf & Horticulture
24 Capri	perennial ryegrass	DLF Trifolium
25 Leaderboard	34% Pennant II, 33% Panther, 33% Seville II p. ryegrass blend	Independent Seeds
26 Seville II	perennial ryegrass	Independent Seeds
27 Snowbird	poa trivialis	Independent Seeds
28 MP58	perennial ryegrass	Jenks Seed Connection
29 Prime	33% Elfkin, 33% MP58, 33% MP88 p. ryegrass blend	Jenks Seed Connection
30 Elfkin	perennial ryegrass	Jenks Seed Connection
31 MP111	perennial ryegrass	Cascade International Seed Co.
32 Mountain View Seed Blend 1	40% Pearl, 30% Pageant II, 30% EP57 p. ryegrass blend	Mountain View Seed Co.
33 Mountain View Seed Blend 2	40% EP56, 30% Pearl, 30% Academy p. ryegrass blend	Mountain View Seed Co.
34 Mountain View Seed Blend 3	40% EP57, 30% EP56, 30% Flash p. ryegrass blend	Mountain View Seed Co.
35 Essence	perennial ryegrass	Cebeco International Seeds
36 Top Hat	perennial ryegrass	Standard Entry
37 Cebeco Blend 1	33% Top Hat, 33% R2, 33% Gator II p. ryegrass blend	Cebeco International Seeds
38 Sabre	poa trivialis	Standard Entry
39 Tourstar	34% Imagine, 33% Ice, 33% Lynx p. ryegrass blend	AgriBioTech, Inc.
40 Marvelgreen + Laser	40% Palmer III, 20% Prelude III, 20% Phantom p. rye, 15% Laser p	AgriBioTech, Inc.
41 Phantom	perennial ryegrass	AgriBioTech, Inc.
42 Marvelgreen Supreme	50% Palmer III, 25% Prelude III, 25% Phantom p. ryegrass blend	AgriBioTech, Inc.

TABLE 1A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT TUCSON, AZ (TUCSON COUNTRY CLUB)

SEEDBED PREPARATION

Scalped with gang mowers and then with lightweight fairway mower in 3 passes to 1/4 inch (Tifway bermuda). Then verticut 2x with triplex unit.

FERTILIZATION

Date(s)	Product	Rate (lbs./M)
18-Oct-99	21-7-14	0.5 lbs. N
27-Oct-99	6-20-20	0.2 lbs. N
15-Nov-99	21-17-14	0.25 lbs. N
13-Dec-99	15-0-0	0.53 lbs. N
03-Jan-00	15-0-0	0.25 lbs. N
07-Feb-00	12-18-16	0.5 lbs. N
27-Mar-00	9-9-9-11% iron	0.37 lbs. N
15-May-00	15-4-7	0.86 lbs. N
	Total	4.26 lbs. N

MOWING

Initial height 5/8"  
 mowing height during test 1/2"  
 Frequency 3 times per week  
 Type of mower 5 gang pull behind, hydraulli driven.  
 (John Deere)

CULTIVATION

Aerfication - dates April 25 - pull behind Ryan, 1/2 inch spoons. Again on May 25.  
 Aerfication - type Surface verticutting cores on April 25 and May 25 after aerification  
 Verticutting

FUNGICIDES

Date(s)	Product	Rate (oz./M)
None		

Dates of topdressing  
 Other cultural practices

HERBICIDES

Date(s)	Product	Rate (oz./M)
07-Feb-00	Barricade Premeregence	

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

Irrigated at 0.20 inch day in May/June due to very hot and dry weather.

INSECTICIDES

Date(s)	Product	Rate (oz./M)
None		

OTHER INFORMATION

Course closed for overseeding Yes, for 19 days  
 Landing area Yes, balls landed  
 Divoting problem not excessive  
 Cart allowed on Test area Yes  
 Traffic patterns no

OTHER PRODUCTS

Date(s)	Product	Rate (oz./M)
None		

NOTES/COMMENTS

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 1B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT TUCSON, AZ (TUCSON COUNTRY CLUB) 1/  
1999-2000 DATA

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

NAME	PERCENT COVER OF LIVING GRASSES IN FALL TRANSITION PERIOD IN 1999										WINTER PERCENT COVER OF (2000)					
	BERMUDA GRASS		OVERSEED GRASS		BERMUDA GRASS		OVERSEED GRASS		BERMUDA GRASS		OVERSEED GRASS		DORMANCY		LIVING	
	10/11	10/11	10/18	10/18	11/1	11/1	11/15	11/15	12/6	12/6	1/3/00	1/3/00	2/1/00	2/1/00	1/3/00	1/3/00
PARAGON	51.7	35.0	51.7	38.0	53.3	43.3	18.3	76.7	16.0	84.0	15.0	85.0	0	93.3		
ALLSPORT	56.7	25.0	65.0	31.7	55.0	41.7	16.0	80.0	7.3	92.7	23.3	76.7	0	88.3		
BRIGHTSTAR II	40.0	48.3	65.0	31.7	50.0	48.3	31.7	63.3	15.0	85.0	20.0	80.0	0	90.0		
MOUNTAIN VIEW 2	58.3	31.7	63.3	33.3	48.3	50.0	18.3	78.3	11.7	88.3	13.3	86.7	0	91.7		
SEVILLE II	55.0	31.7	58.3	38.3	50.0	50.0	19.3	76.7	8.3	91.7	18.3	81.7	0	91.7		
CEBECO BLEND 1	48.3	43.3	70.0	26.7	46.7	51.7	22.3	73.3	8.3	91.7	15.0	85.0	0	93.3		
ESSENCE	60.0	33.3	58.3	35.0	55.0	45.0	14.0	81.7	8.3	91.7	15.0	85.0	0	93.3		
PROFESSIONAL'S SELECT	46.7	41.7	61.7	33.3	50.0	46.7	22.3	71.7	10.0	90.0	21.7	78.3	0	88.3		
TOURSTAR	56.7	30.0	51.7	41.7	48.3	48.3	16.0	80.0	13.3	86.7	16.7	83.3	0	90.0		
FIESTA 3	56.7	30.0	61.7	35.0	40.0	60.0	19.0	75.0	11.7	88.3	18.3	81.7	0	91.0		
LEADERBOARD	53.3	35.0	66.7	31.7	45.0	50.0	20.0	75.0	10.0	89.7	11.7	88.3	0	89.7		
PRIME	58.3	28.3	63.3	33.3	48.3	50.0	29.0	66.7	13.3	86.7	20.0	80.0	0	90.0		
ABT-99-3.268	70.0	18.3	68.3	30.0	48.3	50.0	20.0	75.0	13.3	86.7	15.0	85.0	0	93.3		
CHARGER II	51.7	31.7	66.7	28.3	50.0	48.3	21.0	75.0	12.7	87.3	15.0	85.0	0	93.3		
CITATION III	66.7	18.3	65.0	31.7	48.3	46.7	21.7	73.3	15.0	85.0	11.7	88.3	0	91.0		
PIROUETTE	41.7	45.0	68.3	25.0	46.7	51.7	31.7	65.0	15.0	85.0	13.3	86.3	0	93.0		
MED-007	58.3	30.0	71.7	25.0	56.7	38.3	23.3	71.7	6.7	93.3	16.7	83.3	0	93.3		
BARLENNIUM	60.0	21.7	65.0	30.0	53.3	43.3	18.3	76.7	15.7	84.3	20.0	80.0	0	88.3		
MOUNTAIN VIEW 1	63.3	26.7	71.7	23.3	48.3	51.7	18.3	76.7	10.0	90.0	20.0	80.0	0	90.0		
TOP HAT	65.0	15.0	66.7	25.0	48.3	50.0	10.0	83.3	16.7	83.3	21.7	78.3	0	91.7		
CHARGER	63.3	20.0	65.0	25.0	50.0	45.0	23.3	70.0	18.3	81.7	18.3	81.7	0	93.3		
ELFKIN	63.3	21.7	68.3	26.7	53.3	45.0	16.7	76.7	11.0	89.0	23.3	76.7	0	90.0		
LS-DE1	56.7	26.7	61.7	28.3	56.7	43.3	20.0	75.0	15.0	83.3	16.7	83.3	0	90.0		
MOUNTAIN VIEW 3	66.7	20.0	56.7	33.3	46.7	50.0	19.0	76.7	16.7	83.3	23.3	76.7	0	90.0		
CITATION III + WINTERSTAR	58.3	28.3	66.7	23.3	55.0	43.3	35.0	60.0	10.0	90.0	26.7	73.3	0	86.7		
MARVELGREEN SUPREME	53.3	38.3	65.0	31.7	43.3	50.0	25.0	68.3	16.7	83.3	16.7	83.3	0	91.3		
MP58	61.7	20.0	63.3	26.7	50.0	48.3	22.3	71.7	25.0	75.0	23.3	76.7	0	86.7		
FIRST CUT	63.3	25.0	73.3	23.3	51.7	45.0	35.7	60.0	20.0	80.0	30.0	70.0	0	85.0		
MP111	52.7	30.7	58.3	28.3	61.7	36.7	27.3	66.7	23.3	76.7	25.0	71.7	0	85.0		
PHANTOM	60.0	16.7	63.3	23.3	51.7	46.7	30.0	65.0	21.7	78.3	18.3	81.7	0	90.0		
MARVELGREEN + LASER	56.7	28.3	73.3	16.7	50.0	46.7	31.7	63.3	21.7	78.3	31.7	68.3	0	83.3		
PICK HR A-97	55.0	35.0	71.7	26.7	61.7	38.3	19.3	75.0	20.0	80.0	28.3	70.0	0	85.0		
PST-3BK-99	46.7	35.0	68.3	25.0	51.7	45.0	18.3	76.7	17.7	82.3	30.0	65.0	0	81.7		
BRIGHTSTAR II + WINTERPLAY	58.3	30.0	75.0	20.0	61.7	31.7	40.0	51.7	22.3	77.7	28.3	70.0	0	85.0		
FUTURA 2500	58.3	18.3	63.3	26.7	51.7	41.7	26.0	68.3	10.0	90.0	20.0	76.7	0	86.7		
CAPRI	58.3	20.0	61.7	30.0	55.0	45.0	20.0	73.3	20.0	80.0	26.7	73.3	0	86.7		
TRANSIST	53.3	38.3	75.0	21.7	45.0	53.3	43.3	48.3	26.7	73.3	26.7	70.0	0	85.0		
BARIVIERA	63.3	20.0	86.7	6.7	75.0	20.0	55.0	28.3	61.7	35.0	38.3	45.0	0	53.3		
SABRE	56.7	30.0	80.0	11.7	68.3	23.3	50.0	38.3	56.7	41.7	46.7	55.0	0	56.7		
SNOWBIRD	63.3	21.7	76.7	8.3	68.3	25.0	48.3	36.7	58.3	41.7	31.7	36.7	0	43.3		
PROAM	63.3	23.3	78.3	6.7	70.0	20.0	55.0	31.7	63.3	36.7	41.7	51.7	0	55.0		
WINTERPLAY	55.0	31.7	68.3	16.7	65.0	26.7	51.7	35.0	60.0	40.0	46.7	56.7	0	60.0		
LSD VALUE	67.2	71.2	26.8	21.1	14.1	11.7	19.6	20.4	14.6	14.7	13.5	12.6	-	14.8		
C.V. (%)	25.3	58.2	15.3	37.4	14.6	16.5	42.0	18.3	46.9	12.0	34.8	10.7	-	10.9		

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

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

TABLE 1B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT TUCSON, AZ (TUCSON COUNTRY CLUB)  
1999-2000 DATA

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

NAME	PERCENT COVER OF LIVING GRASSES IN SPRING/SUMMER TRANSITION PERIOD IN 2000											
	BERMUDA GRASS 3/13	OVERSEED GRASS 3/13	BERMUDA GRASS 4/1	OVERSEED GRASS 4/1	BERMUDA GRASS 5/22	OVERSEED GRASS 5/22	BERMUDA GRASS 6/1	OVERSEED GRASS 6/1	BERMUDA GRASS 6/7	OVERSEED GRASS 6/7	BERMUDA GRASS 6/19	OVERSEED GRASS 6/19
	PARAGON	1.7	97.3	11.3	88.0	20.7	78.3	33.0	52.3	82.0	7.7	49.7
ALLSPORT	5.0	94.0	14.7	84.7	24.0	75.0	35.7	57.3	82.0	15.0	69.3	5.7
BRIGHTSTAR II	6.7	92.0	17.3	82.3	27.0	71.7	31.3	67.3	82.3	15.0	75.7	11.7
MOUNTAIN VIEW 2	2.0	97.0	11.3	87.7	20.7	78.3	18.3	79.7	83.7	13.3	79.7	11.7
SEVILLE II	1.7	97.3	11.3	88.0	20.7	78.3	19.0	76.3	87.0	9.3	56.3	26.7
CEBECO BLEND 1	3.3	95.7	13.7	85.3	24.0	75.0	36.3	57.7	66.3	23.3	62.7	3.3
ESSENCE	13.3	85.7	28.0	71.3	42.3	56.7	37.0	58.3	70.7	9.0	64.7	1.0
PROFESSIONAL'S SELECT	3.3	95.7	15.0	85.0	25.7	73.3	30.7	56.3	68.0	13.7	67.3	12.0
TOURSTAR	8.3	90.7	20.7	79.0	32.3	66.7	25.3	70.0	75.7	11.7	61.3	5.3
FIESTA 3	13.3	85.7	21.7	78.0	31.5	67.5	38.3	47.0	62.3	11.0	61.7	8.7
LEADERBOARD	10.0	89.0	25.0	75.0	39.0	60.0	38.0	33.3	50.7	5.7	51.0	10.0
PRIME	6.7	91.7	17.7	78.7	28.3	70.0	37.3	57.7	80.3	16.7	77.3	13.3
ABT-99-3.268	5.0	94.0	16.3	80.7	27.3	71.7	40.3	37.7	63.7	7.0	36.0	0.3
CHARGER II	3.7	95.3	14.0	85.3	24.0	75.0	43.7	46.7	80.7	8.7	51.0	1.7
CITATION III	8.3	90.7	21.7	78.3	34.0	65.0	27.3	47.3	57.0	3.3	32.3	1.0
PIROUETTE	4.0	94.0	14.7	84.0	24.7	73.3	40.3	42.7	69.0	7.3	48.0	1.7
MED-007	8.3	90.7	21.3	78.0	34.0	65.0	27.3	50.3	55.7	12.0	51.0	8.0
BARLENNIUM	11.7	87.3	24.7	74.7	37.3	61.7	44.3	27.7	38.0	2.0	28.0	0.0
MOUNTAIN VIEW 1	3.3	95.7	13.0	86.3	22.3	76.7	40.3	39.7	69.0	9.0	41.0	5.3
TOP HAT	13.3	85.7	29.0	70.7	44.0	55.0	33.7	45.0	43.3	13.7	46.3	3.3
CHARGER	6.7	92.3	18.0	81.3	29.0	70.0	32.3	52.0	70.3	8.7	39.3	0.0
ELFKIN	16.7	82.3	24.7	74.3	31.5	67.5	31.0	54.0	59.7	7.0	39.3	5.0
LS-DE1	6.7	91.3	20.0	78.3	33.0	65.0	31.3	49.7	60.7	4.3	31.3	2.0
MOUNTAIN VIEW 3	11.7	87.3	25.7	74.0	39.0	60.0	39.0	46.3	67.7	13.3	60.0	1.0
CITATION III + WINTERSTAR	10.0	88.0	23.7	75.3	36.3	61.7	43.7	47.3	83.0	11.7	76.0	1.7
MARVELGREEN SUPREME	23.3	75.0	33.3	65.7	41.5	57.5	44.0	34.3	53.7	6.7	48.0	1.7
MP58	6.0	92.7	17.7	81.7	28.7	70.0	40.0	43.0	72.7	4.7	51.3	3.7
FIRST CUT	10.0	89.0	25.0	75.0	39.0	60.0	42.0	34.3	65.0	7.7	65.0	1.0
MP111	13.3	82.3	29.0	67.3	44.0	51.7	41.7	40.0	68.0	10.3	52.0	4.3
PHANTOM	11.7	86.7	25.3	73.7	38.3	60.0	34.0	46.0	68.7	2.7	48.0	3.3
MARVELGREEN + LASER	10.0	88.0	24.3	74.3	38.0	60.0	36.0	53.7	70.7	10.0	48.0	16.0
PICK HR A-97	18.3	79.3	37.3	60.7	56.0	41.7	39.0	44.3	72.0	7.7	64.0	0.0
PST-3BK-99	11.7	82.3	25.0	70.0	37.3	56.7	39.7	46.7	75.0	10.0	67.0	2.3
BRIGHTSTAR II + WINTERPLAY	16.7	80.7	34.7	63.0	52.3	45.0	40.3	35.7	51.3	4.0	60.7	3.3
FUTURA 2500	10.0	85.7	21.3	74.3	49.0	50.0	35.7	38.3	44.3	2.0	42.3	0.3
CAPRI	18.3	79.3	35.3	62.3	52.3	45.0	35.3	42.3	49.3	12.0	38.0	0.3
TRANSIST	20.0	75.0	39.3	56.0	58.3	36.7	52.0	20.3	49.0	6.3	67.3	0.0
BARIVIERA	11.7	47.3	23.7	36.3	35.3	25.0	77.7	12.0	90.0	3.7	98.0	0.0
SABRE	15.0	43.7	29.3	30.3	43.3	16.7	76.7	6.0	83.7	3.0	95.3	0.0
SNOWBIRD	5.0	46.3	14.0	38.0	22.7	29.0	72.0	10.7	77.3	8.0	81.3	0.0
PROAM	8.3	46.7	21.3	35.3	33.7	23.3	75.0	9.3	91.0	3.3	93.7	0.0
WINTERPLAY	13.3	49.0	24.7	38.0	36.0	26.7	56.0	22.0	87.3	4.0	81.0	0.0
LSD VALUE	20.4	25.3	30.1	21.2	43.8	20.9	25.4	55.3	73.9	25.3	73.8	19.4
C.V. (%)	79.0	17.3	48.5	18.0	42.5	21.6	34.7	52.1	32.8	87.3	44.8	174.1

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

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

TABLE 1B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT TUCSON, AZ (TUCSON COUNTRY CLUB)  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT	GENETIC	WINTER	FALL QUALITY IN 1999				WINTER QUALITY		SPRING/SUMMER QUALITY RATINGS IN 2000						QUALITY
	EARLY			ESTABLISHED	COLOR	COLOR	10/20	11/5	11/21	12/6	1/3/00	2/1/00	3/1	3/13	4/25	
PARAGON	35.0	7.3	7.3	6.7	6.7	5.7	5.0	6.3	6.7	6.7	7.3	8.0	7.0	5.3	3.7	6.3
ALLSPORT	25.0	7.3	7.0	6.3	7.0	5.7	5.0	5.7	5.7	6.7	7.7	7.3	7.0	6.0	4.0	6.2
BRIGHTSTAR II	48.3	7.7	7.3	6.0	6.0	6.0	4.7	5.0	6.0	6.7	8.0	7.7	7.0	6.3	5.0	6.2
MOUNTAIN VIEW 2	31.7	6.7	6.7	6.0	6.3	6.0	4.7	5.3	5.7	6.7	7.7	7.3	6.7	6.0	6.0	6.2
SEVILLE II	31.7	7.0	7.3	6.0	6.0	6.0	4.7	5.0	6.7	7.0	7.7	7.7	7.7	5.7	4.7	6.2
CEBECO BLEND 1	43.3	5.3	5.3	5.3	6.3	6.7	5.7	6.0	6.0	6.3	6.7	6.3	6.7	5.7	5.3	6.1
ESSENCE	33.3	5.3	5.3	5.0	5.7	6.7	5.7	6.7	6.7	6.3	6.7	6.0	5.7	6.0	4.7	6.0
PROFESSIONAL'S SELECT	41.7	6.3	6.7	5.3	6.3	6.3	5.0	5.3	6.3	6.3	7.0	7.3	7.0	5.3	4.0	6.0
TOURSTAR	30.0	6.7	6.3	6.0	6.0	6.0	5.3	6.0	6.3	6.3	6.7	6.3	7.0	6.0	4.3	6.0
FIESTA 3	30.0	7.7	6.3	6.7	7.0	6.0	4.7	5.0	6.3	6.3	7.0	7.3	5.0	4.7	4.3	5.9
LEADERBOARD	35.0	6.7	6.7	6.0	6.3	6.3	5.3	6.0	6.3	6.7	7.0	7.0	6.0	4.5	3.3	5.9
PRIME	28.3	7.3	6.7	5.3	5.7	5.0	4.3	5.3	6.3	6.3	6.3	7.3	7.3	6.0	5.7	5.9
ABT-99-3.268	18.3	7.0	7.0	6.0	6.3	5.3	5.0	6.3	6.7	6.7	7.3	7.3	6.0	3.7	3.0	5.8
CHARGER II	31.7	5.7	6.0	5.3	6.3	5.7	5.0	5.7	6.3	6.0	6.3	7.7	7.3	4.7	3.7	5.8
CITATION III	18.3	7.0	6.7	6.3	5.7	6.0	5.3	6.0	7.0	6.7	7.0	7.0	6.3	3.3	2.7	5.8
PIROUETTE	45.0	7.0	6.7	5.7	6.3	5.3	5.3	6.3	6.0	6.0	6.3	7.3	6.0	3.7	3.7	5.7
MED-007	30.0	6.0	6.7	4.7	5.7	5.7	5.0	6.0	6.0	6.3	7.0	6.7	6.7	4.0	4.0	5.6
BARLENNIUM	21.7	7.3	7.3	5.0	6.3	5.7	4.7	5.0	6.3	6.7	7.7	7.3	4.7	3.0	2.0	5.5
MOUNTAIN VIEW 1	26.7	5.7	6.3	6.7	6.0	5.7	4.7	5.7	5.7	5.7	6.7	6.7	5.7	3.7	3.0	5.5
TOP HAT	15.0	6.3	7.0	5.7	5.7	5.7	5.0	5.3	6.0	6.3	7.7	7.0	5.7	2.7	3.3	5.5
CHARGER	20.0	5.7	5.7	5.3	5.3	5.7	5.0	5.7	6.3	6.0	6.0	7.0	6.7	3.7	2.3	5.4
ELFKIN	21.7	6.7	7.0	4.7	5.0	5.0	4.7	5.7	6.3	6.7	7.3	6.7	5.0	4.3	3.3	5.4
LS-DE1	26.7	7.7	6.7	5.0	6.0	5.3	5.0	6.0	6.0	6.0	6.7	7.0	6.3	3.0	2.0	5.4
MOUNTAIN VIEW 3	20.0	6.7	6.7	6.0	6.0	5.0	4.7	5.7	5.3	5.7	6.3	6.7	5.3	4.0	4.0	5.4
CITATION III + WINTERSTAR	28.3	6.7	6.0	5.3	5.3	5.3	4.7	5.7	4.3	4.7	5.7	6.3	6.0	4.7	5.7	5.3
MARVELGREEN SUPREME	38.3	7.7	6.3	5.3	5.7	5.0	4.3	5.3	5.3	5.7	6.7	7.0	5.0	5.0	3.3	5.3
MP58	20.0	7.7	7.7	5.3	6.0	4.3	3.3	4.0	5.0	6.0	7.0	6.7	6.7	3.7	3.0	5.1
FIRST CUT	25.0	6.7	6.7	5.0	5.7	4.7	3.7	4.0	5.7	6.0	7.0	6.3	4.7	3.7	3.7	5.0
MP111	30.7	8.0	7.7	4.7	5.0	5.3	4.0	4.0	5.0	5.3	6.0	7.0	5.3	4.3	4.0	5.0
PHANTOM	16.7	6.7	6.3	5.3	5.3	5.0	3.7	4.0	5.3	5.7	6.7	6.7	6.3	3.0	3.3	5.0
MARVELGREEN + LASER	28.3	6.0	5.7	4.3	5.3	4.3	3.7	4.0	4.3	5.3	6.3	6.7	5.3	4.3	4.0	4.8
PICK HR A-97	35.0	5.0	5.3	5.7	5.3	5.0	3.7	4.3	4.7	4.7	5.3	5.7	5.0	4.0	4.7	4.8
PST-3BK-99	35.0	7.7	6.3	5.0	5.3	4.3	3.3	4.0	5.0	5.0	5.7	5.7	5.0	3.7	5.0	4.8
BRIGHTSTAR II + WINTERPLAY	30.0	6.3	6.0	4.7	5.3	5.0	4.0	4.0	4.3	4.7	5.3	5.3	4.7	5.0	4.0	4.7
FUTURA 2500	18.3	5.0	5.3	5.0	5.3	5.7	4.3	4.3	4.3	4.7	5.3	5.7	4.3	4.0	2.7	4.6
CAPRI	20.0	5.0	5.7	4.7	5.3	4.7	3.7	4.7	5.7	5.0	5.3	5.3	5.0	2.7	2.3	4.5
TRANSIST	38.3	4.7	5.3	5.7	4.0	4.0	3.7	4.7	4.3	4.3	5.0	5.3	5.0	3.0	4.0	4.4
BARIVIERA	20.0	3.7	4.7	3.3	3.7	3.7	2.3	2.3	2.7	2.7	3.3	4.0	3.0	3.7	6.7	3.4
SABRE	30.0	3.3	4.0	3.3	3.0	3.0	2.0	3.0	2.3	2.3	2.7	3.7	2.7	3.7	6.7	3.2
SNOWBIRD	21.7	3.3	3.7	3.3	3.7	3.0	2.0	2.0	2.3	2.3	3.3	4.3	3.3	3.3	5.7	3.2
PROAM	23.3	3.7	3.7	2.7	3.0	3.3	2.0	2.3	2.0	2.3	3.3	3.7	3.0	3.3	6.7	3.1
WINTERPLAY	31.7	3.7	4.3	3.0	2.7	3.3	2.0	2.3	2.7	3.0	3.3	3.7	2.3	2.3	5.7	3.0
LSD VALUE	71.2	1.0	1.4	1.1	1.2	1.8	1.4	1.3	1.5	1.2	1.6	1.5	2.3	7.5	4.3	1.0
C.V. (%)	58.2	10.6	13.4	13.3	13.9	18.8	19.9	17.0	18.2	14.6	16.2	14.1	23.5	46.1	42.0	12.3

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

TABLE 2A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT PALM DESERT, CA (MOUNTAIN VISTA GOLF COURSE)

SEEDBED PREPARATION

Verticut three times; mowed at 0.25"; swept debris; water turned off 2 weeks prior seeding; dethatching would be described as light.

MOWING

Initial height 3/4"  
 mowing height during test 1/2"  
 Frequency 3 times per week  
 Type of mower 5 plex: John Deere 3235A; Jacobsen 3800

CULTIVATION

Aerification - dates Vertidrain with 5/8"-diam. Solid tines, 8"  
 Aerification - type depth on June 1, 2000; 5/8" hollow tines  
 2.5" depth in July, 2000

Verticutting  
 Dates of topdressing  
 Other cultural practices

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

Lowered fairways to 7/16" from 1/2"; Vertidrain on June 1, 2000

OTHER INFORMATION

Course closed for overseeding Yes, for about 1 month  
 Landing area  
 Divoting problem  
 Cart allowed on Test area Yes  
 Traffic patterns no

NOTES/COMMENTS

FERTILIZATION

Date(s)	Product	Rate (lbs./M)
8-Oct-99	8-8-8 Liquid	0.11 N
15-Oct-99	15-15-15	0.5 N
2-Nov-99	15-4-6	0.7 N
5-Nov-99	20-0-0	0.20 N
19-Nov-99	Truegreen Iron	
23-Nov-99	15-4-6	0.60 N
1-Dec-99	21-7-14	0.70 N
14-Dec-99	Truegreen Iron (16 gal./300 gal. Water)	
4-Jan-00	21-7-14	0.70 N
12-Jan-00	Truegreen Iron (16 gal./300 gal. Water)	
20-Jan-00	3-0-20 Liquid	0.03 K
1,2-Jun-00	21-0-0	0.50 N
Total	4.014 lbs. N; 1.42 lbs. P <sub>2</sub> O <sub>5</sub> ; 2.10 lbs. K	

FUNGICIDES

Date(s)	Product	Rate (oz./M)
None		

HERBICIDES

Date(s)	Product	Rate (oz./M)
None		

INSECTICIDES

Date(s)	Product	Rate (oz./M)
None		

OTHER PRODUCTS

Date(s)	Product	Rate (oz./M)
None		

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 2B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT PALM DESERT, CA (MOUNTAIN VISTA GOLF COURSE) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	PERCENT COVER OF LIVING GRASSES IN FALL (1999)					WINTER %COVER (2000)		PERCENT COVER OF LIVING GRASSES IN SPRING/SUMMER (2000)					
	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	OVERSEED GRASS	DORMANCY GRASS	LIVING GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS
	11/18	11/18	12/7	12/7	12/21	1/11	1/11	4/13	4/13	5/4	5/4	6/1	6/1
CEBECO BLEND 1	23.3	76.7	30.0	70.0	97.3	0.0	99.0	63.3	35.0	70.0	21.7	99.0	0.0
CHARGER II	23.3	76.7	20.0	80.0	98.3	0.3	99.0	50.0	45.7	65.0	23.3	99.0	0.0
ELFKIN	23.3	76.7	26.7	73.3	92.3	1.0	98.7	53.3	41.3	73.3	18.3	99.0	0.0
PARAGON	28.3	71.7	21.7	78.3	96.3	1.0	98.7	53.7	38.7	66.7	20.0	99.0	0.0
PROFESSIONAL'S SELECT	26.7	73.3	25.0	75.0	89.7	0.7	98.7	59.3	40.0	78.0	21.7	99.0	0.0
BRIGHTSTAR II	25.0	75.0	25.0	75.0	97.7	0.3	99.0	58.3	34.3	55.0	25.0	99.0	0.0
MARVELGREEN SUPREME	25.0	75.0	26.7	73.3	95.3	0.7	99.0	55.0	41.7	80.0	11.7	99.0	0.0
SEVILLE II	20.0	80.0	21.7	78.3	95.3	3.7	96.0	51.0	43.3	68.3	23.3	99.0	0.0
TOP HAT	21.7	78.3	21.7	78.3	97.7	0.0	99.0	54.7	35.0	75.0	18.3	99.0	0.0
TOURSTAR	23.3	76.7	25.0	75.0	96.0	0.3	99.0	56.0	38.3	75.0	18.3	99.0	0.0
BARLENNIUM	23.3	76.7	26.7	73.3	92.7	1.0	98.7	65.0	28.3	81.7	15.0	99.0	0.0
LEADERBOARD	28.3	71.7	26.7	73.3	96.3	0.3	99.0	51.7	41.0	71.7	18.3	99.0	0.0
MED-007	25.0	75.0	28.3	71.7	91.7	2.0	97.7	55.0	39.0	76.7	15.0	99.0	0.0
CITATION III	30.0	70.0	26.7	73.3	93.3	0.7	99.0	48.3	40.0	60.0	20.0	99.0	0.0
FIRST CUT	25.0	75.0	26.7	73.3	90.0	0.7	99.0	55.0	39.3	61.7	26.7	96.0	3.3
LS-DE1	26.7	73.3	26.7	73.3	89.3	4.0	95.7	60.3	33.3	65.0	20.0	99.0	0.0
MOUNTAIN VIEW 1	28.3	71.7	31.7	68.3	88.3	2.0	97.3	54.7	38.3	71.7	21.7	99.0	0.0
MOUNTAIN VIEW 2	26.7	73.3	33.3	66.7	84.7	1.3	98.3	65.0	33.3	80.0	13.3	99.0	0.0
PHANTOM	28.3	71.7	26.7	73.3	97.7	0.7	98.7	55.0	34.3	71.7	18.3	99.0	0.0
PIROUETTE	25.0	75.0	33.3	66.7	92.0	0.7	98.7	57.0	35.0	76.7	15.0	99.0	0.0
CHARGER	30.0	70.0	31.7	68.3	87.7	0.3	99.0	55.0	41.0	66.7	21.7	99.0	0.0
ESSENCE	28.3	71.7	30.0	70.0	75.0	2.0	98.0	53.3	42.7	75.0	20.0	97.7	1.7
FIESTA 3	26.7	73.3	21.7	78.3	91.3	2.3	97.3	53.3	36.7	76.3	20.0	99.0	0.0
MOUNTAIN VIEW 3	25.0	75.0	21.7	78.3	85.0	1.3	98.3	50.0	33.3	68.3	18.3	97.7	1.7
PRIME	35.0	65.0	33.3	66.7	83.3	3.3	96.7	58.3	37.7	81.7	16.7	99.0	0.0
MARVELGREEN + LASER	26.7	73.3	31.7	68.3	91.0	2.7	97.0	56.7	36.7	75.0	20.0	99.0	0.0
MP58	25.0	75.0	30.0	70.0	88.3	0.7	99.0	56.7	31.7	68.3	20.0	99.0	0.0
PST-3BK-99	28.3	71.7	33.3	66.7	83.3	4.0	95.7	48.3	38.3	66.7	18.3	97.7	1.7
ALLSPORT	28.3	71.7	36.7	63.3	88.0	7.0	92.7	53.0	36.7	66.7	23.3	97.7	1.7
BRIGHTSTAR II + WINTERPLAY	25.0	75.0	30.0	70.0	83.3	1.0	98.7	50.0	31.7	65.0	20.0	88.0	11.7
CAPRI	26.7	73.3	33.3	66.7	88.3	1.7	98.3	43.3	38.0	61.7	21.7	93.0	6.7
CITATION III + WINTERSTAR	25.0	75.0	28.3	71.7	87.7	0.3	99.0	53.3	31.7	70.0	21.7	91.3	8.3
FUTURA 2500	30.0	70.0	43.3	56.7	73.3	10.7	89.3	55.0	41.7	81.7	16.7	99.0	0.0
MP111	28.3	71.7	36.7	63.3	78.3	6.3	93.7	53.3	31.7	75.0	15.0	99.0	0.0
PICK HR A-97	31.7	68.3	40.0	60.0	75.0	3.3	96.3	58.3	30.0	61.7	23.3	94.3	5.0
TRANSIST	43.3	56.7	45.0	55.0	75.0	2.0	97.7	53.7	41.0	75.0	20.0	89.7	10.0
PROAM	43.3	56.7	43.3	56.7	73.3	0.7	98.7	44.3	45.0	46.7	41.7	53.3	46.7
SABRE	48.3	51.7	43.3	56.7	70.0	2.0	97.7	43.3	50.0	56.7	36.7	63.3	36.7
SNOWBIRD	53.3	46.7	48.3	51.7	66.7	3.3	96.7	43.3	40.0	56.7	33.3	71.7	28.3
BARIVIERA	48.3	51.7	50.0	50.0	61.7	7.0	93.0	50.0	31.7	51.7	31.7	78.0	21.7
WINTERPLAY	68.3	31.7	60.0	40.0	55.0	15.0	85.0	53.3	31.7	61.7	31.7	74.7	25.0
ABT-99-3.268	38.3	61.7	66.7	33.3	55.0	7.7	92.3	26.7	46.7	31.7	31.7	99.0	0.0
LSD VALUE	9.8	9.8	11.0	11.0	14.3	9.3	9.4	12.9	16.9	20.3	11.5	10.6	10.9
C.V. (%)	20.9	9.0	21.6	10.4	10.4	160.9	4.1	13.1	18.0	16.0	29.5	7.3	140.4

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

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

TABLE 2B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT PALM DESERT, CA (MOUNTAIN VISTA GOLF COURSE)  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT	GENETIC COLOR	WINTER COLOR	FALL QUALITY IN 1999			WINTER QUALITY		SPRING/SUMMER QUALITY RATINGS IN 2000					QUALITY MEAN
	EARLY ESTABLISHED			11/18	12/7	12/21	1/11/00	2/10/00	3/9	3/23	4/13	5/4	6/1	
CEBECO BLEND 1	76.7	7.3	7.3	7.0	7.0	7.7	7.7	7.0	7.0	7.7	7.0	7.3	7.3	7.3
CHARGER II	80.0	7.7	7.0	7.3	7.0	8.0	7.7	7.3	7.0	7.0	6.7	7.0	7.7	7.3
ELFKIN	71.7	8.0	7.3	7.7	7.0	7.3	7.7	7.7	7.3	7.7	6.7	7.0	7.3	7.3
PARAGON	75.0	8.0	7.7	7.3	7.3	7.7	8.0	7.7	7.0	7.0	6.7	6.7	7.3	7.3
PROFESSIONAL'S SELECT	66.7	7.7	7.3	7.7	7.0	7.7	7.3	7.7	7.0	7.7	7.0	7.0	7.3	7.3
BRIGHTSTAR II	71.7	8.0	7.7	8.0	7.0	8.0	7.7	7.3	6.7	7.3	6.7	6.0	7.3	7.2
MARVELGREEN SUPREME	76.7	7.7	7.0	7.3	6.7	7.7	7.7	7.0	7.0	7.3	7.0	7.0	7.7	7.2
SEVILLE II	81.7	7.7	6.7	8.0	7.0	7.7	7.3	7.0	7.0	7.0	6.7	6.7	7.3	7.2
TOP HAT	80.0	7.7	7.3	7.3	7.0	8.0	8.0	7.3	7.3	7.3	6.0	6.7	7.3	7.2
TOURSTAR	75.0	6.7	7.7	7.3	7.0	7.3	7.7	7.7	7.0	7.3	6.7	7.0	7.3	7.2
BARLENNIUM	76.7	7.3	7.0	7.7	7.0	7.3	7.0	7.0	7.0	7.3	6.7	6.7	7.0	7.1
LEADERBOARD	76.7	7.0	7.7	7.3	7.0	7.3	7.3	7.7	7.0	7.0	6.3	6.3	7.3	7.1
MED-007	73.3	7.3	7.3	7.7	7.0	7.3	6.7	7.3	7.0	7.3	6.7	6.3	7.3	7.1
CITATION III	73.3	7.7	6.7	7.7	7.0	7.0	7.3	6.7	7.0	7.0	6.3	6.3	7.3	7.0
FIRST CUT	71.7	7.0	6.7	8.0	6.3	7.3	7.0	6.7	6.7	7.0	6.7	6.7	7.3	7.0
LS-DE1	71.7	8.0	6.7	7.7	6.7	7.3	6.7	7.0	7.0	7.0	6.7	6.7	7.3	7.0
MOUNTAIN VIEW 1	68.3	7.0	6.7	7.0	6.7	7.0	7.3	6.7	7.0	7.0	6.7	7.0	7.7	7.0
MOUNTAIN VIEW 2	68.3	7.3	7.0	7.3	6.7	6.7	7.3	7.3	6.7	7.3	6.7	7.0	7.3	7.0
PHANTOM	71.7	7.7	7.7	7.7	6.7	7.7	7.3	7.0	6.7	7.3	6.3	6.3	7.3	7.0
PIROUETTE	75.0	7.7	7.0	7.3	6.7	7.0	7.3	7.0	6.7	6.7	6.7	6.3	8.0	7.0
CHARGER	73.3	7.3	7.3	7.0	6.0	7.3	7.3	7.3	6.7	7.0	6.3	6.3	7.3	6.9
ESSENCE	70.0	7.0	7.0	7.0	7.0	6.7	7.0	7.0	6.7	7.3	6.7	6.7	7.3	6.9
FIESTA 3	78.3	7.0	6.7	7.3	7.0	7.0	7.3	7.3	6.3	6.3	6.3	7.0	7.3	6.9
MOUNTAIN VIEW 3	75.0	7.7	6.7	7.0	7.3	7.3	7.3	7.0	6.3	6.7	6.3	6.3	7.3	6.9
PRIME	66.7	8.0	6.7	6.7	6.3	6.7	7.0	7.0	7.0	7.0	6.7	7.0	7.3	6.9
MARVELGREEN + LASER	70.0	7.0	6.7	7.3	6.7	7.3	7.3	6.3	6.0	6.7	6.7	6.7	7.3	6.8
MP58	71.7	7.3	6.3	7.3	6.7	7.0	6.7	6.7	6.3	6.3	6.0	6.3	7.3	6.7
PST-3BK-99	65.0	8.0	6.7	7.0	6.3	7.0	7.3	6.7	6.7	6.7	6.0	6.3	7.0	6.7
ALLSPORT	75.0	7.3	6.7	6.7	6.0	6.3	6.7	7.0	6.3	6.7	6.3	6.3	7.3	6.6
BRIGHTSTAR II + WINTERPLAY	71.7	6.7	6.3	7.7	6.7	6.7	7.0	6.3	6.3	6.0	6.0	6.3	6.7	6.6
CAPRI	71.7	6.3	5.7	6.3	6.3	7.0	7.0	6.3	6.3	6.7	6.3	6.3	6.7	6.5
CITATION III + WINTERSTAR	73.3	6.7	5.7	7.3	6.7	7.3	6.7	6.0	5.7	6.0	6.3	6.3	6.7	6.5
FUTURA 2500	71.7	6.7	6.3	7.0	5.7	5.7	6.0	6.3	6.0	7.3	6.7	7.0	7.3	6.5
MP111	75.0	8.0	5.3	7.0	6.3	6.0	6.0	6.0	5.7	5.3	5.7	6.0	7.0	6.1
PICK HR A-97	73.3	6.0	5.7	6.3	5.0	5.7	6.7	5.3	5.7	6.3	6.0	6.3	5.3	5.9
TRANSIST	65.0	6.7	5.0	5.3	4.7	5.3	7.0	5.3	5.3	5.3	7.0	6.0	7.0	5.8
PROAM	43.3	6.3	4.3	5.0	4.7	4.7	6.0	4.7	5.0	5.3	6.3	6.7	5.7	5.4
SABRE	40.0	6.7	4.3	4.7	4.3	4.7	6.3	4.7	4.0	5.3	6.3	6.3	5.3	5.2
SNOWBIRD	48.3	6.0	4.0	4.7	4.3	4.0	6.3	4.3	4.3	5.0	6.3	6.0	6.0	5.1
BARIVIERA	45.0	6.7	4.0	4.7	4.0	3.7	5.7	4.3	4.3	5.0	6.3	6.0	6.3	5.0
WINTERPLAY	31.7	6.7	4.3	4.0	3.3	3.3	4.7	3.7	4.0	4.7	5.3	6.7	6.3	4.6
ABT-99-3.268	73.3	5.3	4.0	4.3	3.0	3.0	4.3	3.7	3.3	4.3	4.0	3.3	5.3	3.9
LSD VALUE	9.9	1.1	0.9	0.8	1.1	1.3	1.1	1.0	1.1	1.1	1.1	1.4	0.8	0.5
C.V. (%)	9.4	8.9	9.1	7.8	11.1	12.9	9.6	10.3	11.3	10.0	9.2	10.7	7.2	5.3

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

TABLE 3A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT ORLANDO, FL (GRAND CYPRESS GOLF COURSE )

SEEDBED PREPARATION

Fairly aggressive verticut to remove thatch and promote good seed to soil contact.  
Vacuum up clippings and dispose. Mow at 3/8" and clean again.

FERTILIZATION

Date(s)	Product	Rate (lbs./M)
	Preplant (0-23-23)	0.5 N
4-Jan-00	19-0-19	0.5 N
29-Feb-00	15-0-15	0.5 N
3-Apr-00	15-0-15	1 N

MOWING

Initial height 5/8"  
mowing height during test 3/8"  
Frequency every other day  
Type of mower Jacobson LF 100

FUNGICIDES

Date(s)	Product	Rate (oz./M)
None		

CULTIVATION

Aerification - dates 6-16 and 6-17  
Aerification - type Hollow Tine - two directions  
Verticutting Verticutting after aerification  
Dates of topdressing  
Other cultural practices

HERBICIDES

Date(s)	Product	Rate (oz./M)
Regular weekly rotation of the Herbicide program. Basagran, Illoxan, MSMA (used only 3 gallon). Sprayer - no boom spraying on overseed. Rates - Basagran 1 oz./1000 ft <sup>2</sup> , Illoxan 0.25oz./1000 ft <sup>2</sup> , MSMA 2oz./1000 ft <sup>2</sup>		

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

Simazine applied twice in April - 1/16 oz./1000 ft.<sup>2</sup>

Date(s)	Product	Rate (oz./M)
4-13 and 4-27	Round up - perimeters	5
3-May-00	Simazine	1/16
16-May-00	Lescogran	1 (spot treat)
30-May-00	Oftano	1 gal./Acre
	Lescogran	1 (spot treat)

OTHER INFORMATION

Course closed for overseeding  
Landing area  
Divoting problem  
Cart allowed on Test area  
Traffic patterns

INSECTICIDES

Date(s)	Product	Rate (oz./M)
None		

OTHER PRODUCTS

NOTES/COMMENTS

Date(s)	Product	Rate (oz./M)
None		

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 3B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT ORLANDO, FL (GRAND CYPRESS GOLF COURSE) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	PERCENT COVER OF LIVING GRASSES DURING FALL TRANSITION PERIOD IN 1999									
	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS
	10/29	10/29	11/5	11/5	11/12	11/12	11/19	11/19	11/26	11/26
PROAM	65.7	9.3	53.7	33.3	29.3	57.7	20.0	67.0	10.7	76.3
BRIGHTSTAR II + WINTERPLAY	57.7	17.3	45.3	41.7	18.7	68.3	13.3	73.7	8.0	79.0
WINTERPLAY	65.3	9.7	56.7	30.3	31.3	55.7	15.3	71.7	7.3	79.7
FIRST CUT	54.7	20.3	23.0	64.0	12.7	74.3	12.7	74.3	7.3	79.7
SABRE	59.0	16.0	58.0	29.0	30.0	57.0	17.7	69.3	9.0	78.0
SNOWBIRD	65.3	9.7	62.0	25.0	26.7	60.3	16.7	70.3	8.3	78.7
BARIVIERA	65.3	9.7	59.3	27.7	31.3	55.7	19.7	67.3	11.0	76.0
MARVELGREEN + LASER	52.3	22.7	48.3	38.7	15.7	71.3	18.0	69.0	10.3	76.7
PROFESSIONAL'S SELECT	52.3	22.7	31.3	55.7	21.7	65.3	20.7	66.3	12.3	74.7
CITATION III + WINTERSTAR	53.0	22.0	20.0	67.0	18.7	68.3	14.3	72.7	8.7	78.3
FIESTA 3	51.3	23.7	20.0	67.0	13.0	74.0	17.7	69.3	10.3	76.7
MOUNTAIN VIEW 2	53.7	21.3	34.3	52.7	21.0	66.0	19.0	68.0	13.0	74.0
TOUPSTAR	49.3	25.7	17.3	69.7	13.7	73.3	11.7	75.3	6.3	80.7
FUTURA 2500	54.0	21.0	37.0	50.0	26.7	60.3	23.0	64.0	16.0	71.0
BARLENNIUM	49.7	25.3	23.0	64.0	17.7	69.3	18.7	68.3	12.3	74.7
PICK HR A-97	53.0	22.0	25.7	61.3	28.7	58.3	26.7	60.3	20.3	66.7
ABT-99-3.268	52.3	22.7	25.7	61.3	14.7	72.3	15.7	71.3	7.7	79.3
ELFKIN	47.3	27.7	31.3	55.7	12.7	74.3	19.7	67.3	14.0	73.0
ESSENCE	57.0	18.0	23.0	64.0	14.7	72.3	18.0	69.0	11.3	75.7
LEADERBOARD	51.7	23.3	42.7	44.3	19.7	67.3	19.0	68.0	13.7	73.3
MOUNTAIN VIEW 3	58.3	16.7	39.7	47.3	23.3	63.7	22.0	65.0	15.7	71.3
TRANSIST	56.7	18.3	39.7	47.3	13.0	74.0	22.3	64.7	14.7	72.3
ALLSPORT	57.3	17.7	37.0	50.0	21.3	65.7	20.3	66.7	14.7	72.3
CEBECO BLEND 1	51.3	23.7	12.0	75.0	13.7	73.3	17.0	70.0	10.7	76.3
MARVELGREEN SUPREME	55.3	19.7	31.3	55.7	18.0	69.0	19.7	67.3	13.0	74.0
MED-007	48.7	26.3	10.7	76.3	17.7	69.3	21.7	65.3	15.0	72.0
SEVILLE II	51.0	24.0	28.3	58.7	19.3	67.7	17.3	69.7	12.7	74.3
CHARGER	54.0	21.0	25.7	61.3	14.3	72.7	18.7	68.3	13.0	74.0
PARAGON	53.7	21.3	28.7	58.3	17.0	70.0	18.3	68.7	13.0	74.0
PRIME	52.3	22.7	31.3	55.7	27.7	59.3	23.7	63.3	19.7	67.3
LS-DE1	56.7	18.3	48.3	38.7	16.7	70.3	19.7	67.3	18.3	68.7
CAPRI	55.3	19.7	37.0	50.0	26.7	60.3	22.3	64.7	17.3	69.7
CHARGER II	50.0	25.0	25.7	61.3	25.0	62.0	21.0	66.0	14.3	72.7
PHANTOM	53.0	22.0	42.7	44.3	27.7	59.3	22.3	64.7	16.7	70.3
MOUNTAIN VIEW 1	49.7	25.3	20.0	67.0	14.0	73.0	21.0	66.0	15.7	71.3
MP58	63.7	11.3	53.7	33.3	27.0	60.0	24.0	63.0	18.7	68.3
BRIGHTSTAR II	52.0	23.0	28.7	58.3	15.0	72.0	28.0	59.0	23.0	64.0
TOP HAT	51.7	23.3	31.0	56.0	24.0	63.0	21.0	66.0	16.3	70.7
PIROJETTE	56.0	19.0	31.3	55.7	30.3	56.7	21.7	65.3	19.0	68.0
CITATION III	56.7	18.3	48.3	38.7	33.3	53.7	24.0	63.0	21.7	65.3
MP111	55.0	20.0	45.3	41.7	23.3	63.7	27.0	60.0	23.3	63.7
PST-3BK-99	60.0	15.0	56.7	30.3	25.0	62.0	19.3	67.7	15.7	71.3
LSD VALUE	6.3	6.3	17.2	17.2	18.9	18.9	10.6	10.6	8.6	8.6
C.V. (%)	7.0	19.2	29.9	20.6	38.8	12.5	23.7	7.0	33.6	6.3

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

TABLE 3B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT ORLANDO, FL (GRAND CYRESS GOLF COURSE)  
1999-2000 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

## PERCENT COVER OF LIVING GRASSES IN WINTER AND SPRING/SUMMER TRANSITION PERIOD

NAME	BERMUDA	OVERSEED	BERMUDA	OVERSEED	POA	BERMUDA	OVERSEED	POA	BERMUDA	OVERSEED	POA	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED
	GRASS	GRASS	GRASS	GRASS	ANNUA	GRASS	GRASS	ANNUA	GRASS	GRASS	ANNUA	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS
	DEC.99	DEC.99	JAN.00	JAN.00	JAN.00	FEB.00	FEB.00	FEB.00	MAR.00	MAR.00	MAR.00	APR.00	APR.00	MAY 00	MAY 00	JUNE 00	JUNE 00
PROAM	10.7	87.7	9.0	87.0	4.0	9.0	81.3	9.7	9.0	83.7	7.3	9.7	86.7	54.0	46.7	62.7	37.3
BRIGHTSTAR II + WINTERPLAY	12.3	85.0	9.0	84.7	6.3	9.0	80.3	10.7	9.0	84.3	6.7	8.3	89.0	44.7	56.0	68.7	31.7
WINTERPLAY	10.7	83.0	8.7	81.3	10.0	9.0	79.0	11.7	9.0	81.0	10.0	11.7	85.0	40.3	60.7	66.7	34.3
FIRST CUT	12.7	84.7	9.3	85.0	5.7	9.0	78.7	12.0	9.0	81.0	10.0	13.3	86.3	37.3	63.7	67.3	33.7
SABRE	10.7	87.0	9.0	88.0	3.0	9.0	84.7	6.0	9.0	80.3	10.3	7.7	89.3	37.0	64.0	55.7	45.0
SNOWBIRD	11.0	85.3	9.0	83.0	8.0	9.0	78.7	12.3	9.0	83.3	7.7	8.3	88.3	37.3	63.7	66.7	34.0
BARIVIERA	10.7	82.3	9.0	79.3	12.0	9.3	63.3	27.3	9.0	72.3	18.7	11.7	84.3	54.3	46.7	65.3	36.0
MARVELGREEN + LASER	12.3	85.3	9.3	82.3	8.0	9.0	75.3	15.3	9.0	80.7	10.3	13.3	86.0	60.7	40.0	65.3	35.3
PROFESSIONAL'S SELECT	12.7	84.3	9.0	83.7	7.0	9.0	80.7	10.0	9.0	77.3	13.7	32.7	70.0	83.3	17.0	99.0	0.0
CITATION III + WINTERSTAR	12.7	79.0	8.7	75.7	15.7	9.3	61.7	29.0	9.0	67.3	24.0	12.7	78.0	37.3	63.7	75.0	25.7
FIESTA 3	12.7	84.3	10.0	83.0	7.3	9.0	79.7	10.7	9.0	77.3	13.7	39.3	62.3	84.0	16.3	99.0	0.0
MOUNTAIN VIEW 2	14.0	81.7	9.3	82.3	8.0	9.3	79.7	11.3	9.0	78.0	13.0	42.7	65.7	70.3	30.0	99.0	0.0
TOURSTAR	12.7	80.7	9.0	78.0	13.0	9.0	70.3	20.3	9.3	72.7	18.0	30.0	65.3	88.3	11.7	99.0	0.0
FUTURA 2500	14.3	80.0	9.7	80.0	10.7	9.3	77.3	13.0	9.7	72.3	18.0	26.3	70.7	81.3	18.7	99.0	0.0
BARLENNIUM	13.3	71.0	9.3	69.0	21.7	9.0	65.0	26.0	9.0	58.7	32.3	31.0	64.7	71.3	29.0	99.0	0.0
PICK HR A-97	15.7	77.3	9.3	80.7	10.3	9.3	70.7	20.0	9.0	56.7	34.3	25.3	72.0	77.0	23.3	99.0	0.0
ABT-99-3.268	11.0	85.7	9.0	86.0	5.3	9.3	58.7	32.0	9.0	33.3	57.3	30.3	69.3	84.0	16.0	99.0	0.0
ELFKIN	14.3	63.3	9.0	63.3	27.7	9.0	60.7	30.3	9.0	50.3	40.7	41.7	56.7	77.0	23.0	99.0	0.0
ESSENCE	12.7	71.3	9.0	68.0	22.7	9.0	58.3	32.0	9.0	47.3	43.7	18.0	65.7	77.7	22.7	99.0	0.0
LEADERBOARD	15.3	72.0	9.7	68.3	22.3	9.3	67.0	23.7	9.3	69.7	21.0	34.0	62.0	80.0	20.7	99.0	0.0
MOUNTAIN VIEW 3	15.0	78.0	9.7	75.0	15.3	9.0	66.0	25.0	9.0	64.0	27.0	34.7	59.3	84.0	16.3	99.0	0.0
TRANSIST	13.0	75.7	9.0	72.3	18.7	9.0	58.7	32.3	9.0	50.3	40.3	18.0	71.0	77.3	23.0	99.0	0.0
ALLSPORT	14.7	64.0	8.7	63.7	27.7	9.3	57.7	33.0	9.0	48.7	42.3	36.3	55.3	87.0	13.0	99.0	0.0
CEBECO BLEND 1	13.0	66.3	8.7	57.7	33.3	9.0	46.0	44.7	9.3	35.0	55.7	22.0	52.7	87.7	12.3	99.0	0.0
MARVELGREEN SUPREME	13.3	73.3	9.0	70.7	20.3	9.0	65.7	25.3	9.0	62.7	28.0	40.0	57.3	78.0	22.7	99.0	0.0
MED-007	13.7	66.3	9.0	60.0	31.0	9.0	52.0	39.0	9.0	46.0	45.0	35.0	53.3	86.7	13.7	97.3	2.0
SEVILLE II	15.3	66.0	9.3	61.3	29.3	9.0	55.7	35.0	10.0	62.7	27.3	33.7	61.7	84.7	15.3	99.0	0.0
CHARGER	14.0	62.3	8.7	52.7	38.7	9.0	39.0	52.0	9.7	37.0	53.3	25.7	60.0	87.3	12.7	99.0	0.0
PARAGON	14.3	68.0	8.7	66.7	24.7	9.0	58.3	32.0	9.0	57.7	33.0	45.7	53.0	85.0	15.0	99.0	0.0
PRIME	17.7	72.0	10.0	71.0	19.3	9.3	63.0	27.7	9.3	56.7	34.0	37.3	54.3	83.0	17.3	99.0	0.0
LS-DE1	18.7	58.7	9.0	55.3	35.7	9.0	50.0	40.7	9.0	50.7	40.0	42.7	51.0	80.3	20.3	99.0	0.0
CAPRI	15.7	73.3	9.3	72.0	18.7	9.3	56.3	34.3	9.0	45.7	45.3	21.3	60.3	68.3	32.0	99.0	0.0
CHARGER II	13.3	56.0	9.0	44.0	47.0	9.0	37.7	53.3	9.7	42.3	48.0	28.3	54.3	80.7	19.7	99.0	0.0
PHANTOM	15.0	60.7	9.0	57.7	33.0	9.0	58.7	32.0	9.3	51.3	39.3	39.0	56.7	73.0	27.0	99.0	0.0
MOUNTAIN VIEW 1	15.3	62.7	9.0	58.7	32.0	9.0	51.7	39.3	9.3	45.0	45.7	30.0	58.3	84.7	15.7	99.0	0.0
MP58	16.7	64.0	9.7	60.0	30.3	9.3	59.3	31.3	9.0	52.7	38.0	32.0	51.0	59.0	41.7	99.0	0.0
BRIGHTSTAR II	17.0	55.7	9.0	52.0	39.0	9.0	45.3	45.3	9.0	36.0	55.0	43.0	43.0	78.0	22.7	87.7	12.0
TOP HAT	15.7	50.7	9.0	39.7	51.3	9.0	36.3	54.7	9.3	31.0	59.0	27.3	57.3	79.3	21.0	99.0	0.0
PIROUETTE	18.0	58.0	9.3	54.3	36.3	9.7	50.7	40.0	9.3	41.3	49.0	42.7	40.0	64.7	35.7	98.3	0.0
CITATION III	19.0	57.7	9.3	55.7	35.0	9.3	53.0	38.0	9.0	41.0	50.0	46.7	47.3	57.3	43.3	99.0	0.0
MP111	19.0	47.0	9.0	41.3	49.7	9.0	40.0	50.3	9.0	38.7	52.0	45.3	48.3	75.3	24.7	99.0	0.0
PST-3BK-99	16.0	44.0	9.0	33.7	57.3	9.0	32.3	58.3	9.0	27.0	63.7	31.7	44.3	81.7	18.7	99.0	0.0
LSD VALUE	4.3	19.3	1.5	27.7	28.4	1.1	28.8	29.2	1.2	29.4	29.1	15.4	17.3	24.0	24.3	11.2	11.2
C.V. (%)	16.7	15.7	5.7	22.1	67.4	3.4	24.8	52.6	4.3	28.9	50.3	33.0	16.7	20.0	50.0	8.1	95.7

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

TABLE 3B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT ORLANDO, FL (GRAND CYPRESS GOLF COURSE)  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT EARLY ESTABLISHED	GENETIC COLOR	WINTER COLOR	QUALITY RATINGS IN WINTER AND SPRING/SUMMER TRANSITION PERIOD (2000)							
				DEC.99	JAN.00	FEB.00	MAR.00	APR.00	MAY 00	JUNE 00	MEAN
PROAM	63.3	3.0	1.0	8.0	8.0	8.0	7.7	9.0	7.3	7.0	7.8
BRIGHTSTAR II + WINTERPLAY	72.0	5.0	4.0	7.3	7.3	8.0	7.7	9.0	7.3	7.3	7.7
WINTERPLAY	64.7	4.3	3.7	7.7	7.3	8.3	7.7	8.7	7.3	6.3	7.6
FIRST CUT	75.0	6.3	5.7	7.0	7.0	7.7	7.7	8.7	7.7	7.3	7.5
SABRE	64.3	3.0	1.3	7.7	7.7	8.3	7.7	8.3	6.0	7.0	7.5
SNOWBIRD	66.3	3.7	2.7	7.0	7.0	7.7	7.7	9.0	7.0	7.0	7.5
BARIVIERA	62.7	4.7	3.3	7.7	7.0	7.0	7.0	8.0	6.0	7.7	7.2
MARVELGREEN + LASER	71.3	5.0	4.7	6.7	7.0	7.3	7.0	8.7	6.0	6.0	7.0
PROFESSIONAL'S SELECT	66.7	7.7	6.7	7.0	6.7	7.0	5.7	7.0	7.0	8.0	6.9
CITATION III + WINTERSTAR	71.7	5.7	5.7	7.0	6.7	7.0	6.3	7.3	7.0	5.3	6.8
FIESTA 3	72.3	8.0	7.3	7.0	6.7	6.7	5.3	6.3	7.0	8.0	6.8
MOUNTAIN VIEW 2	67.7	7.7	7.0	6.7	6.7	6.3	5.7	6.7	6.7	8.0	6.8
TOURSTAR	75.3	7.7	6.7	7.0	6.7	6.3	5.3	6.0	7.3	8.0	6.8
FUTURA 2500	63.0	5.3	5.3	6.7	6.7	6.7	5.0	6.7	6.3	8.0	6.6
BARLENNIUM	69.7	8.0	8.0	6.3	6.0	6.0	5.3	6.0	7.0	8.0	6.4
PICK HR A-97	60.3	4.7	5.3	6.7	6.7	6.3	4.3	6.7	6.0	8.0	6.4
ABT-99-3.268	73.0	2.0	2.0	7.7	7.3	6.3	3.7	4.7	6.0	8.0	6.3
ELFKIN	71.7	8.0	7.3	6.7	6.3	6.3	4.7	4.7	6.7	8.0	6.3
ESSENCE	71.7	5.7	5.3	6.3	6.7	6.0	4.3	5.7	6.7	8.0	6.3
LEADERBOARD	68.7	8.3	8.0	6.3	6.0	6.0	5.0	6.0	6.7	8.0	6.3
MOUNTAIN VIEW 3	65.3	7.7	7.0	6.3	6.0	6.0	4.7	6.3	6.3	8.0	6.3
TRANSIST	69.7	4.0	4.3	6.7	6.7	6.3	4.0	5.3	6.7	8.0	6.2
ALLSPORT	67.0	8.0	7.3	6.0	5.7	5.7	4.3	6.3	7.0	8.0	6.1
CEBECO BLEND 1	72.7	7.0	6.0	6.0	5.7	5.7	4.3	5.7	7.3	8.0	6.1
MARVELGREEN SUPREME	69.0	8.3	8.3	6.3	5.7	5.3	4.3	6.0	6.7	8.0	6.1
MED-007	68.3	8.0	8.0	6.3	5.7	5.7	4.7	6.3	7.0	7.3	6.1
SEVILLE II	70.0	8.3	8.0	6.3	5.7	5.7	5.0	5.3	7.3	8.0	6.1
CHARGER	71.0	6.0	5.0	6.7	5.7	5.3	4.0	5.7	7.0	8.0	6.0
PARAGON	70.3	8.0	8.0	6.3	6.0	6.0	4.7	4.7	6.7	8.3	6.0
PRIME	62.3	8.3	7.7	6.0	5.7	5.7	5.0	5.3	6.7	8.0	6.0
LS-DEL	69.3	8.3	8.3	6.0	5.3	5.3	4.3	6.0	6.3	8.0	5.9
CAPRI	63.3	4.0	4.3	6.3	5.7	5.7	4.3	5.7	4.7	8.0	5.8
CHARGER II	65.0	7.3	6.3	6.0	5.3	5.0	4.0	5.3	6.7	8.0	5.8
PHANTOM	63.0	8.3	8.0	6.0	5.3	5.7	4.7	5.3	6.0	8.0	5.8
MOUNTAIN VIEW 1	70.0	7.7	7.0	6.0	5.3	5.7	4.3	5.3	6.7	8.0	5.7
MP58	62.3	8.3	8.0	6.3	5.7	5.7	4.7	5.0	4.0	8.0	5.7
BRIGHTSTAR II	66.0	8.0	8.0	6.3	5.7	5.0	4.3	5.0	6.0	7.3	5.6
TOP HAT	65.7	7.0	5.7	6.0	5.3	5.0	4.0	5.0	6.3	8.0	5.6
PIROUETTE	62.0	8.0	7.0	6.3	5.3	5.7	4.7	4.3	5.3	7.0	5.5
CITATION III	59.3	8.0	7.7	5.7	5.3	5.3	4.7	5.3	4.3	6.7	5.3
MP111	63.0	8.3	8.0	5.3	4.3	5.0	4.0	5.3	5.7	8.0	5.3
PST-3BK-99	65.7	7.3	6.3	5.3	4.7	5.0	4.0	4.3	6.0	8.0	5.3
LSD VALUE	13.3	0.7	1.1	0.9	1.2	1.0	1.1	1.4	2.6	1.8	0.9
C.V. (%)	8.2	7.6	12.2	8.7	11.9	10.4	14.3	14.5	16.7	10.6	8.5

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

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

TABLE 4A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT DULUTH (ATLANTA), GA (ATLANTA ATHLETIC CLUB)

SEEDBED PREPARATION

Area drug with steel mat into 3/4" bermudagrass

MOWING

Initial height 3/4"  
mowing height during test 5/16"  
Frequency 3 times per week  
Type of mower 5 reel Fwy/Triplex

FERTILIZATION

Date(s)	Product	Rate (lbs./M)
22-Nov-99	21-0-0	0.5 lb. N
17-Feb-00	21-0-0	0.5 lb. N
24-Apr-00	19-19-19	1 lb. N
30-May-00	Nitroform 38-0-0	2.6 lbs. N
12-Jun-00	46-0-0	0.5 lb. N
10-Jul-00	19-19-19	1 lb. N

CULTIVATION

Aerification - dates  
Aerification - type  
Verticutting  
Dates of topdressing  
Other cultural practices

FUNGICIDES

Date(s)	Product	Rate (oz./M)
29-Mar-00	Primo	0.2
27-Jun-00	Primo	0.1

HERBICIDES

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

Date(s)	Product	Rate (oz./M)
None		

INSECTICIDES

Date(s)	Product	Rate (oz./M)
None		

OTHER INFORMATION

Course closed for overseeding Yes, for 1 day  
Landing area No  
Divoting problem No  
Cart allowed on Test area Yes  
Traffic patterns no

OTHER PRODUCTS

Date(s)	Product	Rate (oz./M)
None		

NOTES/COMMENTS

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 4B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT DULUTH (ATLANTA), GA (ATLANTA ATHLETIC CLUB) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	PERCENT COVER OF GRASSES IN SPRING/SUMMER TRANSITION PERIOD IN 2000														
	PERCENT OF OVERSEEDING GRASS IN 1999				BERMUDA	OVERSEED	POA	BERMUDA	OVERSEED	POA	BERMUDA	OVERSEED	POA	DEAD	
	10/29	11/15	11/30	12/17	GRASS	GRASS	ANNUA	GRASS	GRASS	ANNUA	GRASS	GRASS	ANNUA	GRASS	
BARLENNIUM	43.3	43.3	78.3	85.0	6.7	91.7	1.7	6.7	91.7	1.7	21.7	76.7	1.7	0.0	
PROFESSIONAL'S SELECT	36.7	40.0	73.3	81.7	6.7	91.7	1.7	6.7	91.7	1.7	23.3	73.3	1.7	1.7	
MOUNTAIN VIEW 1	33.3	35.0	76.7	80.0	6.7	90.0	3.3	6.7	90.0	3.3	36.7	61.7	1.7	0.0	
TOURSTAR	33.3	33.3	70.0	76.7	10.0	90.0	0.0	8.3	91.7	0.0	40.0	58.3	0.0	1.7	
ALLSPORT	31.7	36.7	70.0	80.0	8.3	90.0	3.3	8.3	90.0	1.7	28.3	70.0	1.7	0.0	
LEADERBOARD	36.7	40.0	68.3	78.3	6.7	91.7	1.7	6.7	91.7	1.7	31.7	63.3	3.3	1.7	
LS-DE1	31.7	31.7	65.0	75.0	10.0	85.0	5.0	10.0	85.0	5.0	31.7	66.7	1.7	0.0	
MOUNTAIN VIEW 2	31.7	33.3	70.0	80.0	6.7	90.0	3.3	5.0	91.7	3.3	41.7	56.7	1.7	0.0	
PIROUETTE	35.0	38.3	66.7	80.0	5.0	89.7	5.0	6.7	88.3	5.0	36.7	61.7	1.7	0.0	
BRIGHTSTAR II	30.0	31.7	66.7	75.0	10.0	86.7	3.3	11.7	86.7	1.7	33.3	65.0	1.7	0.0	
MARVELGREEN SUPREME	33.3	36.7	71.7	81.7	6.7	90.0	3.3	8.3	90.0	1.7	40.0	58.3	1.7	0.0	
CHARGER II	35.0	40.0	71.7	78.3	11.7	88.3	0.0	11.7	88.3	0.0	30.0	68.3	1.7	0.0	
MED-007	31.7	38.3	70.0	78.3	6.7	90.0	3.3	6.7	90.0	3.3	28.3	66.7	3.3	1.7	
PHANTOM	36.7	38.3	76.7	81.7	6.7	91.7	1.7	8.3	91.7	0.0	40.0	55.0	0.0	5.0	
CEBECO BLEND 1	33.3	36.7	68.3	76.7	10.0	88.3	1.7	10.0	88.3	1.7	36.7	60.0	0.0	3.3	
FIRST CUT	28.3	36.7	70.0	81.7	11.7	86.7	1.7	11.7	86.7	1.7	28.3	70.0	1.7	0.0	
MARVELGREEN + LASER	30.0	38.3	75.0	81.7	11.7	83.3	5.0	11.7	83.3	5.0	30.0	66.7	1.7	1.7	
MOUNTAIN VIEW 3	26.7	33.3	71.7	75.0	10.0	86.7	3.3	10.0	88.3	1.7	38.3	60.0	1.7	0.0	
SEVILLE II	28.3	30.0	58.3	75.0	10.0	86.7	3.3	10.0	88.3	1.7	25.0	70.0	5.0	0.0	
CITATION III + WINTERSTAR	31.7	36.7	63.3	73.3	11.7	85.0	3.3	11.7	85.0	3.3	30.0	65.0	1.7	3.3	
TOP HAT	30.0	31.7	66.7	76.7	10.0	88.3	1.7	10.0	90.0	0.0	31.7	66.7	1.7	0.0	
BRIGHTSTAR II + WINTERPLAY	28.3	28.3	63.3	75.0	13.3	81.7	5.0	11.7	83.3	5.0	31.7	66.7	1.7	0.0	
CHARGER	36.7	40.0	76.7	80.0	10.0	86.7	3.3	8.3	88.3	3.3	28.3	65.0	1.7	5.0	
ELFKIN	21.7	42.5	70.0	77.5	10.0	88.3	3.3	10.0	88.3	3.3	33.3	58.3	3.3	8.3	
ESSENCE	31.7	33.3	68.3	76.7	11.7	85.0	3.3	11.7	85.0	3.3	38.3	55.0	1.7	5.0	
FUTURA 2500	30.0	35.0	65.0	75.0	8.3	90.0	1.7	8.3	90.0	1.7	30.0	61.7	1.7	6.7	
PRIME	33.3	38.3	70.0	73.3	10.0	86.7	3.3	10.0	86.7	3.3	33.3	60.0	1.7	5.0	
CITATION III	25.0	31.7	61.7	73.3	8.3	86.7	5.0	8.3	86.7	5.0	35.0	60.0	1.7	3.3	
FIESTA 3	26.7	35.0	66.7	76.7	6.7	88.3	5.0	8.3	88.3	3.3	40.0	53.3	1.7	5.0	
CAPRI	26.7	28.3	46.7	50.0	8.3	83.0	5.0	10.0	81.7	8.3	38.3	51.7	3.3	6.7	
MP58	25.0	30.0	58.3	68.3	11.7	85.0	3.3	10.0	88.3	1.7	38.3	53.3	5.0	3.3	
PICK HR A-97	23.3	23.3	46.7	66.7	10.0	86.7	3.3	10.0	86.7	3.3	25.0	71.7	3.3	0.0	
PROAM	20.0	25.0	60.0	73.3	13.3	86.7	0.0	11.7	86.7	1.7	30.0	63.3	1.7	6.7	
TRANSIST	28.3	31.7	61.7	70.0	10.0	85.0	5.0	10.0	85.0	5.0	31.7	66.7	1.7	0.0	
PARAGON	26.7	30.0	61.7	71.7	8.3	88.3	3.3	8.3	88.3	3.3	33.3	61.7	1.7	3.3	
SABRE	20.0	23.3	58.3	68.3	8.3	83.3	8.3	10.0	81.7	8.3	33.3	65.0	0.0	1.7	
SNOWBIRD	13.3	25.0	45.0	67.5	15.0	75.0	10.0	13.3	78.3	10.0	28.3	68.3	3.3	3.3	
MP111	23.3	35.0	58.3	75.0	8.3	85.0	6.7	8.3	85.0	6.7	38.3	55.0	3.3	3.3	
BARIVIERA	20.0	23.3	45.0	66.7	15.0	78.3	6.7	13.3	80.0	6.7	25.0	71.7	3.3	0.0	
PST-3BK-99	26.7	31.7	61.7	66.7	8.3	86.7	5.0	8.3	86.7	5.0	38.3	45.0	6.7	10.0	
WINTERPLAY	11.7	16.7	33.3	58.3	20.0	73.3	6.7	20.0	75.0	5.0	33.3	60.0	3.3	3.3	
ABT-99-3.268	18.3	23.3	41.7	65.0	13.3	78.3	8.3	16.7	78.3	5.0	46.7	41.7	3.3	8.3	
LSD VALUE	19.4	22.0	36.2	29.0	10.0	12.4	11.6	6.7	10.4	10.4	20.5	21.9	8.8	20.5	
C.V. (%)	29.6	25.3	22.0	13.6	41.0	6.3	95.3	33.4	5.6	104.3	23.7	15.3	110.4	203.5	

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

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

TABLE 4B.  
(CONT'D)MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT DULUTH (ATLANTA), GA (ATLANTA ATHLETIC CLUB)  
1999-2000 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT COVER OF GRASSES IN SPRING/SUMMER TRANSITION PERIOD IN 2000									
	BERMUDA GRASS	OVERSEED GRASS	POA ANNUA	DEAD GRASS	BERMUDA GRASS	OVERSEED GRASS	DEAD GRASS	BERMUDA GRASS	OVERSEED GRASS	DEAD GRASS
	5/29	5/29	5/29	5/29	6/16	6/16	6/16	6/26	6/26	6/26
BARLENNIUM	28.3	70.0	0.0	1.7	65.0	33.3	1.7	79.7	16.7	3.3
PROFESSIONAL'S SELECT	31.7	65.0	1.7	1.7	73.3	23.3	3.3	86.3	10.0	3.3
MOUNTAIN VIEW 1	48.3	50.0	1.7	0.0	75.0	25.0	0.0	81.3	15.0	3.3
TOURSTAR	41.7	56.7	0.0	1.7	70.0	28.3	3.3	83.0	16.7	0.0
ALLSPORT	35.0	61.7	1.7	1.7	61.7	28.3	3.3	79.7	16.7	3.3
LEADERBOARD	41.7	53.3	3.3	1.7	71.7	25.0	6.7	76.3	15.0	8.3
LS-DEL	35.0	61.7	1.7	1.7	66.7	31.7	1.7	78.3	18.3	3.3
MOUNTAIN VIEW 2	45.0	51.7	1.7	0.0	80.0	23.3	0.0	78.3	18.3	3.3
PIROUETTE	36.7	60.0	1.7	1.7	65.0	33.3	1.7	79.7	16.7	3.3
BRIGHTSTAR II	38.3	60.0	1.7	0.0	76.7	26.7	0.0	78.3	20.0	1.7
MARVELGREEN SUPREME	48.3	50.0	1.7	0.0	66.7	30.0	6.7	85.0	11.7	3.3
CHARGER II	40.0	56.7	1.7	1.7	70.0	30.0	0.0	80.0	18.3	1.7
MED-007	36.7	60.0	1.7	1.7	63.3	31.7	5.0	71.3	20.0	8.3
PHANTOM	48.3	51.7	0.0	0.0	63.3	16.7	20.0	68.0	10.0	21.7
CEBECO BLEND 1	46.7	53.3	0.0	0.0	63.3	26.7	6.7	78.3	16.7	5.0
FIRST CUT	28.3	70.0	1.7	0.0	70.0	28.3	1.7	73.0	20.0	6.7
MARVELGREEN + LASER	35.0	63.3	1.7	0.0	75.0	23.3	5.0	83.0	13.3	3.3
MOUNTAIN VIEW 3	41.7	56.7	1.7	0.0	66.7	30.0	3.3	75.0	21.7	3.3
SEVILLE II	35.0	60.0	3.3	1.7	61.7	33.3	5.0	74.7	16.7	8.3
CITATION III + WINTERSTAR	35.0	43.3	1.7	3.3	65.0	26.7	8.3	74.7	18.3	6.7
TOP HAT	33.3	65.0	1.7	0.0	56.7	30.0	3.3	71.7	21.7	6.7
BRIGHTSTAR II + WINTERPLAY	38.3	58.3	1.7	1.7	65.0	30.0	5.0	73.3	21.7	5.0
CHARGER	40.0	56.7	1.7	1.7	63.3	16.7	20.0	69.7	10.0	20.0
ELFKIN	40.0	45.0	8.3	8.3	63.3	20.0	18.3	63.3	13.3	25.0
ESSENCE	41.7	56.7	1.7	0.0	75.0	15.0	10.0	78.0	10.0	11.7
FUTURA 2500	31.7	60.0	3.3	5.0	63.3	30.0	6.7	70.0	20.0	10.0
PRIME	36.7	56.7	1.7	5.0	65.0	28.3	6.7	71.3	18.3	11.7
CITATION III	43.3	51.7	1.7	3.3	51.7	41.7	6.7	65.0	28.3	6.7
FIESTA 3	41.7	51.7	1.7	5.0	51.7	33.3	18.3	58.3	16.7	25.0
CAPRI	41.7	53.3	1.7	3.3	75.0	16.7	8.3	79.7	8.3	8.3
MP58	41.7	51.7	3.3	3.3	70.0	20.0	10.0	76.7	13.3	10.0
PICK HR A-97	30.0	66.7	3.3	0.0	71.7	11.7	16.7	86.7	6.7	6.7
PROAM	33.3	61.7	1.7	3.3	66.7	13.3	20.0	73.3	11.7	15.0
TRANSIST	38.3	58.3	1.7	1.7	75.0	13.3	11.7	83.0	8.3	8.3
PARAGON	38.3	48.3	3.3	10.0	55.0	28.3	16.7	63.3	16.7	35.0
SABRE	38.3	61.7	0.0	0.0	61.7	20.0	18.3	75.0	10.0	15.0
SNOWBIRD	28.3	65.0	3.3	5.0	60.0	20.0	20.0	75.0	8.3	18.3
MP111	38.3	48.3	6.7	6.7	58.3	20.3	20.0	74.3	5.0	20.0
BARIVIERA	28.3	68.3	1.7	1.7	65.0	21.7	16.7	78.3	13.3	8.3
PST-3BK-99	41.7	41.7	6.7	10.0	63.3	23.3	13.3	66.7	13.3	20.0
WINTERPLAY	35.0	55.0	1.7	8.3	65.0	10.0	21.7	81.7	5.0	13.3
ABT-99-3.268	50.0	26.7	6.7	16.7	80.0	10.0	10.0	91.0	3.3	5.0
LSD VALUE	24.7	28.0	9.2	22.8	54.3	15.5	48.5	52.6	15.9	42.5
C.V. (%)	22.7	20.3	129.4	219.0	20.0	33.1	141.1	17.2	47.9	132.8

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

TABLE 4B.  
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT DULUTH (ATLANTA), GA (ATLANTA ATHLETIC CLUB)  
1999-2000 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	COLOR 3/13/00	COLOR 4/17/00	QUALITY 12/17/99	QUALITY RATINGS IN WINTER AND SPRING/SUMMER IN 2000						QUALITY MEAN	
				1/27	3/13	4/17	5/15	5/29	6/16		6/26
BARLENNIUM	9.0	9.0	7.0	6.3	8.0	8.0	8.0	8.0	7.0	7.7	7.5
PROFESSIONAL'S SELECT	8.3	8.3	7.3	6.0	8.0	8.0	7.3	7.7	7.7	7.7	7.5
MOUNTAIN VIEW 1	8.0	8.0	6.7	6.0	7.7	8.0	7.3	7.7	8.0	7.7	7.4
TOURSTAR	7.7	8.0	6.0	6.0	7.3	8.3	8.0	7.7	7.7	8.0	7.4
ALLSPORT	8.7	8.7	6.3	6.0	7.3	8.0	7.7	7.7	7.7	8.0	7.3
LEADERBOARD	8.3	8.7	7.0	5.7	7.7	8.0	8.0	7.7	7.0	7.0	7.3
LS-DEL	8.0	8.0	6.3	6.0	7.3	7.7	7.3	7.3	8.0	8.3	7.3
MOUNTAIN VIEW 2	7.7	8.0	6.0	5.3	7.7	8.0	7.3	8.0	8.0	7.7	7.3
PIROUETTE	8.0	9.0	7.3	5.7	7.3	8.0	7.0	7.7	7.7	8.0	7.3
BRIGHTSTAR II	8.3	9.0	6.7	6.0	7.3	7.7	7.0	8.0	7.0	7.7	7.2
MARVELGREEN SUPREME	8.0	8.0	6.7	6.0	7.7	8.0	7.3	7.7	6.7	7.3	7.2
CHARGER II	8.0	8.0	6.0	6.0	7.0	7.3	7.7	8.0	7.0	7.7	7.1
MED-007	8.0	8.3	6.7	5.7	7.3	7.7	7.7	7.7	7.0	7.0	7.1
PHANTOM	8.0	8.0	6.7	5.7	8.0	8.3	7.0	7.7	6.7	6.7	7.1
CEBECO BLEND 1	7.0	7.3	6.0	5.7	7.3	7.3	7.3	7.7	7.0	7.7	7.0
FIRST CUT	6.7	7.3	6.7	6.0	7.0	7.0	7.3	8.0	6.7	7.7	7.0
MARVELGREEN + LASER	6.3	7.0	6.0	6.0	6.7	7.0	7.3	7.7	7.0	8.0	7.0
MOUNTAIN VIEW 3	8.0	8.0	6.0	6.0	7.0	7.7	7.3	7.7	7.0	7.7	7.0
SEVILLE II	7.7	8.3	6.3	5.3	7.3	8.0	7.3	7.7	6.0	7.7	7.0
CITATION III + WINTERSTAR	7.0	7.3	6.0	6.0	7.0	7.3	7.3	7.3	6.7	7.3	6.9
TOP HAT	8.0	8.0	5.7	5.7	7.3	7.7	7.0	7.7	7.0	7.3	6.9
BRIGHTSTAR II + WINTERPLAY	7.3	7.7	6.3	6.3	6.3	7.0	6.7	7.3	7.0	7.3	6.8
CHARGER	7.0	7.0	6.7	6.0	7.0	7.7	6.7	7.0	6.3	6.7	6.8
ELFKIN	8.0	8.0	6.5	6.0	7.3	8.0	7.7	7.0	6.0	6.0	6.8
ESSENCE	7.3	7.3	5.7	5.3	7.0	7.3	7.0	7.7	7.0	7.3	6.8
FUTURA 2500	7.7	8.0	5.7	5.7	7.0	7.7	7.3	7.7	6.7	6.7	6.8
PRIME	8.3	8.0	6.0	5.7	7.3	7.7	7.3	7.3	5.7	7.7	6.8
CITATION III	8.3	8.7	5.7	5.3	7.0	7.7	7.0	7.3	6.3	6.7	6.6
FIESTA 3	8.0	8.0	6.3	5.3	7.0	7.3	7.3	7.0	5.7	5.7	6.5
CAPRI	7.5	8.0	6.7	5.5	6.7	6.7	6.0	6.3	6.3	7.0	6.4
MP58	8.0	8.3	6.0	5.3	6.3	7.3	7.0	7.3	5.3	6.7	6.4
PICK HR A-97	6.7	6.7	6.3	5.3	6.3	6.7	7.0	7.0	5.0	7.3	6.4
PROAM	5.7	6.3	5.7	5.3	6.3	7.0	7.3	7.3	5.3	6.7	6.4
TRANSIST	6.7	7.0	6.0	5.3	7.0	7.0	6.7	7.0	6.0	6.3	6.4
PARAGON	8.7	8.7	6.0	6.0	6.7	7.0	6.3	6.0	5.7	6.7	6.3
SABRE	5.3	6.0	5.7	5.0	5.7	6.7	7.3	7.7	5.7	6.3	6.3
SNOWBIRD	6.0	6.7	5.5	5.7	6.0	6.0	7.7	7.0	5.0	7.0	6.3
MP111	8.0	8.3	6.0	5.0	7.0	7.0	6.7	6.7	5.0	6.3	6.2
BARIVIERA	5.3	5.7	5.7	4.7	6.0	6.3	7.0	7.0	5.0	6.7	6.0
PST-3BK-99	8.0	7.7	5.3	5.0	6.7	6.7	5.7	6.3	5.3	6.0	5.9
WINTERPLAY	5.7	5.7	5.0	4.7	5.3	6.0	6.3	6.3	5.0	6.0	5.6
ABT-99-3.268	5.0	5.0	4.7	5.0	5.7	5.7	4.3	5.7	6.0	6.3	5.4
LSD VALUE	0.9	0.9	2.1	1.3	1.3	1.3	1.4	1.9	4.0	5.8	1.4
C.V. (%)	7.5	7.2	12.9	9.8	9.9	9.3	10.2	10.4	21.4	19.0	9.4

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

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

TABLE 5A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT STARKVILLE, MS (MISS. ST. UNIV. GOLF COURSE)

SEEDBED PREPARATION

Verticutting in 2 directions at 0.25" below ground level.

MOWING

Initial height 0.75"  
 mowing height during test 0.5"  
 Frequency 3 times per week  
 Type of mower Triplex, gang, etc. RANSOME 205

FERTILIZATION

Date(s)	Product	Rate (lbs./M)
7-Oct-99	0-20-20	400 lbs./Acre
26-Oct-99	21-2-20	200 lbs./Acre
12-Jan-00	21-2-20	200 lbs./Acre
9-Mar-00	21-2-20	200 lbs./Acre

CULTIVATION

Aerification - dates  
 Aerification - type  
 Verticutting  
 Dates of topdressing  
 Other cultural practices

FUNGICIDES

Date(s)	Product	Rate (oz./M)
None		

HERBICIDES

Date(s)	Product	Rate (oz./M)
None		

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

INSECTICIDES

Date(s)	Product	Rate (oz./M)
None		

OTHER INFORMATION

Course closed for overseeding No  
 Landing area No  
 Divoting problem No  
 Cart allowed on Test area No  
 Traffic patterns No

OTHER PRODUCTS

Date(s)	Product	Rate (oz./M)
None		

NOTES/COMMENTS

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 5B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT STARKVILLE, MS (MISSISSIPPI STATE UNIVERSITY GOLF COURSE) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	PERCENT COVER OF LIVING GRASSES IN FALL						PERCENT COVER OF GRASSES IN WINTER (2000)			
	BERMUDA GRASS		OVERSEED GRASS		BERMUDA GRASS		DORMANCY	LIVING	DORMANCY	LIVING
	12/1/99	12/1/99	12/17/99	12/17/99	1/3/00	1/3/00	BERMUDA GRASS 2/29	OVERSEED GRASS 2/29	BERMUDA GRASS 3/15	OVERSEED GRASS 3/15
SEVILLE II	11.7	88.3	5.0	95.0	0	95.0	0.0	99.0	0.0	99.0
ESSENCE	15.0	85.0	8.3	91.7	0	93.3	0.0	99.0	0.0	99.0
LS-DE1	15.0	85.0	11.7	88.3	0	91.7	3.3	96.0	0.0	99.0
PST-3BK-99	15.0	85.0	10.0	90.0	0	93.3	0.0	99.0	0.0	99.0
TOURSTAR	16.7	83.3	10.0	90.0	0	91.7	0.0	99.0	0.0	99.0
BRIGHTSTAR II	13.3	86.7	10.0	90.0	0	90.0	1.7	97.7	0.0	99.0
CEBECO BLEND 1	16.7	83.3	11.7	88.3	0	91.7	0.0	99.0	0.0	99.0
FIESTA 3	15.0	85.0	10.0	90.0	0	88.3	5.0	94.7	0.0	99.0
MED-007	15.0	85.0	10.0	90.0	0	91.7	6.7	93.3	0.0	99.0
ALLSPORT	18.3	81.7	11.7	88.3	0	88.3	3.3	96.0	3.3	96.0
CAPRI	15.0	85.0	10.0	90.0	0	93.3	0.0	99.0	0.0	99.0
ELFKIN	18.3	81.7	11.7	88.3	0	91.7	3.3	96.0	3.3	96.0
LEADERBOARD	16.7	83.3	10.0	90.0	0	91.7	1.7	97.7	0.0	99.0
PROFESSIONAL'S SELECT	15.0	85.0	10.0	90.0	0	91.7	5.0	94.7	0.0	99.0
TOP HAT	16.7	83.3	10.0	90.0	0	91.7	5.0	94.7	0.0	99.0
BARLENNIUM	13.3	86.7	8.3	91.7	0	91.7	5.0	94.7	0.0	99.0
CITATION III	18.3	81.7	13.3	86.7	0	88.3	5.0	94.7	3.3	96.0
MOUNTAIN VIEW 1	15.0	85.0	11.7	88.3	0	90.0	0.0	99.0	3.3	96.0
MP58	18.3	81.7	11.7	88.3	0	88.3	1.7	97.7	3.3	96.0
PARAGON	20.0	80.0	11.7	88.3	0	91.7	1.7	97.7	0.0	99.0
PIRQUETTE	21.7	78.3	11.7	88.3	0	91.7	3.3	96.0	0.0	99.0
CHARGER	18.3	81.7	10.0	90.0	0	91.7	5.0	94.7	3.3	96.0
CHARGER II	15.0	85.0	11.7	88.3	0	90.0	3.3	96.0	0.0	99.0
FIRST CUT	16.7	83.3	10.0	90.0	0	95.0	6.7	93.3	0.0	99.0
MOUNTAIN VIEW 2	20.0	80.0	11.7	88.3	0	90.0	5.0	94.7	3.3	96.0
MOUNTAIN VIEW 3	20.0	80.0	15.0	85.0	0	85.0	5.0	94.7	0.0	99.0
MP111	21.7	78.3	15.0	85.0	0	86.7	6.7	93.3	3.3	96.0
PRIME	16.7	83.3	11.7	88.3	0	91.7	3.3	96.3	0.0	99.0
CITATION III + WINTERSTAR	16.7	83.3	11.7	88.3	0	88.3	3.3	96.0	3.3	96.0
FUTURA 2500	15.0	85.0	11.7	88.3	0	90.0	3.3	96.3	3.3	96.0
MARVELGREEN SUPREME	16.7	83.3	10.0	90.0	0	88.3	3.3	96.3	3.3	96.0
PHANTOM	23.3	76.7	16.7	83.3	0	86.7	10.0	90.0	0.0	99.0
BRIGHTSTAR II + WINTERPLAY	18.3	81.7	13.3	86.7	0	90.0	8.3	91.7	3.3	96.0
MARVELGREEN + LASER	15.0	85.0	11.7	88.3	0	86.7	8.3	91.3	6.7	93.0
PICK HR A-97	18.3	81.7	11.7	88.3	0	91.7	6.7	93.3	3.3	96.0
TRANSIST	15.0	85.0	8.3	91.7	0	91.7	6.7	93.0	3.3	96.0
SNOWBIRD	23.3	76.7	10.0	90.0	0	90.0	5.0	94.7	3.3	96.0
ABT-99-3.268	18.3	81.7	11.7	88.3	0	88.3	5.0	94.7	5.0	94.3
PROAM	38.3	61.7	18.3	81.7	0	85.0	5.0	95.0	3.3	96.0
WINTERPLAY	35.0	65.0	20.0	80.0	0	88.3	5.0	95.0	0.0	99.0
BARIVIERA	36.7	63.3	23.3	76.7	0	81.7	8.3	91.7	10.0	90.0
SABFE	40.0	60.0	28.3	71.7	0	78.3	5.0	94.7	11.7	88.3
LSD VALUE	9.0	9.0	6.9	6.9	-	7.9	8.4	7.9	8.8	8.0
C.V. (%)	28.7	6.7	32.5	4.5	-	4.3	86.9	3.3	178.2	3.4

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

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

TABLE 5B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT STARKVILLE, MS (MISSISSIPPI STATE UNIVERSITY GOLF COURSE)  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT COVER OF LIVING GRASSES IN SPRING/SUMMER TRANSITION PERIOD IN 2000									
	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED
	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS
	4/6	4/6	5/2	5/2	5/15	5/15	6/6	6/6	6/23	6/23
SEVILLE II	16.7	83.3	20.0	80.0	26.7	73.3	63.3	36.7	94.3	3.3
ESSENCE	15.0	85.0	20.0	80.0	20.0	80.0	60.0	40.0	93.3	3.3
LS-DE1	15.0	85.0	20.0	80.0	21.7	78.3	66.7	31.7	99.0	0.0
PST-3BK-99	15.0	85.0	30.0	70.0	26.7	73.3	66.7	33.3	99.0	0.0
TOURSTAR	15.0	85.0	20.0	80.0	23.3	76.7	63.3	36.7	97.7	1.7
BRIGHTSTAR II	15.0	85.0	21.7	78.3	20.0	80.0	63.3	36.7	97.7	1.7
CEBECO BLEND 1	15.0	85.0	20.0	80.0	20.0	80.0	63.3	36.7	94.3	3.3
FIESTA 3	15.0	85.0	20.0	80.0	26.7	73.3	60.0	40.0	96.3	3.3
MED-007	15.0	85.0	16.7	83.3	16.7	83.3	65.0	35.0	96.0	3.3
ALLSPORT	16.7	83.3	21.7	78.3	20.0	80.0	63.3	36.7	97.7	1.7
CAPRI	16.7	83.3	21.7	78.3	20.0	80.0	63.3	36.7	93.0	5.0
ELFKIN	15.0	85.0	21.7	78.3	23.3	76.7	63.3	36.7	94.7	3.3
LEADERBOARD	15.0	85.0	21.7	78.3	21.7	78.3	60.0	40.0	97.7	1.7
PROFESSIONAL'S SELECT	15.0	85.0	21.7	78.3	20.0	80.0	63.3	36.7	93.0	5.0
TOP HAT	15.0	85.0	20.0	80.0	23.3	76.7	60.0	40.0	93.0	5.0
BARLENNIUM	15.0	85.0	20.0	80.0	30.0	70.0	58.3	41.7	94.7	1.7
CITATION III	16.7	83.3	21.7	78.3	21.7	76.7	70.0	30.0	97.7	1.7
MOUNTAIN VIEW 1	15.0	85.0	21.7	78.3	20.0	80.0	60.0	40.0	96.3	1.7
MP58	15.0	85.0	23.3	76.7	23.3	76.7	56.7	43.3	97.7	1.7
PARAGON	15.0	85.0	20.0	80.0	21.7	78.3	63.3	36.7	91.3	5.0
PIRQUETTE	15.0	85.0	20.0	80.0	20.0	80.0	66.7	33.3	96.3	1.7
CHARGER	16.7	83.3	20.0	80.0	18.3	81.7	63.3	36.7	97.7	1.7
CHARGER II	15.0	85.0	20.0	80.0	21.7	78.3	60.0	38.3	86.7	8.3
FIRST CUT	15.0	85.0	21.7	78.3	21.7	78.3	60.0	46.7	93.0	1.7
MOUNTAIN VIEW 2	16.7	83.3	21.7	78.3	21.7	78.3	66.7	33.3	95.0	3.3
MOUNTAIN VIEW 3	15.0	85.0	20.0	80.0	23.3	76.7	63.3	36.7	94.3	5.0
MP111	18.3	81.7	21.7	78.3	23.3	76.7	63.3	36.7	97.7	1.7
PRIME	15.0	85.0	20.0	80.0	23.3	76.7	66.7	31.7	94.3	3.3
CITATION III + WINTERSTAR	13.3	86.7	23.3	76.7	20.0	80.0	63.3	35.0	91.3	5.0
FUTURA 2500	16.7	83.3	23.3	76.7	20.0	80.0	66.7	33.3	94.3	3.3
MARVELGREEN SUPREME	16.7	83.3	21.7	78.3	20.0	80.0	63.3	36.7	93.0	1.7
PHANTOM	15.0	85.0	20.0	80.0	20.0	80.0	66.7	33.3	97.7	1.7
BRIGHTSTAR II + WINTERPLAY	13.3	86.7	20.0	80.0	30.0	70.0	58.3	40.0	93.0	3.3
MARVELGREEN + LASER	18.3	81.7	21.7	78.3	30.0	70.0	70.0	28.3	97.7	0.0
PICK HR A-97	16.7	83.3	20.0	80.0	25.0	75.0	70.0	25.0	97.7	0.0
TRANSIST	21.7	78.3	23.3	76.7	20.0	80.0	70.0	28.3	96.0	0.0
SNOWBIRD	11.7	88.3	23.3	76.7	28.3	66.7	70.0	28.3	99.0	0.0
ABT-99-3.268	23.3	76.7	26.7	73.3	36.7	63.3	91.7	6.7	99.0	0.0
PROZM	11.7	88.3	31.7	68.3	31.7	68.3	70.0	26.7	96.0	0.0
WINTERPLAY	10.0	90.0	30.0	70.0	33.3	66.7	66.7	30.0	94.3	1.7
BARIVIERA	20.0	80.0	26.7	73.3	33.3	66.7	65.0	33.3	97.7	0.0
SABRE	16.7	83.3	25.0	75.0	31.7	68.3	73.3	23.3	92.7	3.3
LSD VALUE	6.6	6.6	11.0	11.0	10.5	9.9	10.7	12.5	11.6	11.2
C.V. (%)	19.0	3.5	19.5	5.5	22.7	7.0	9.1	19.9	4.2	135.5

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

TABLE 5B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT STARKVILLE, MS (MISSISSIPPI STATE UNIVERSITY GOLF COURSE)  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT	GENETIC COLOR	WINTER COLOR	SEEDLING VIGOR	FALL QUALITY IN 1999			QUALITY IN WINTER AND SPRING/SUMMER IN 2000						QUALITY MEAN
	EARLY ESTABLISHED				11/23	12/1	12/20	1/18	2/17	3/20	4/10	5/16	6/28	
SEVILLE II	80.0	7.0	8.0	7.7	8.0	7.0	6.0	7.0	8.0	8.0	6.7	6.0	7.0	7.1
ESSENCE	76.7	6.0	7.0	8.0	7.3	6.7	6.3	6.7	8.0	7.7	6.7	6.7	7.0	7.0
LS-DE1	78.3	7.0	8.0	7.7	8.0	6.7	6.0	6.7	8.0	8.0	6.7	6.3	7.0	7.0
PST-3BK-99	73.3	7.7	8.0	7.0	7.3	6.3	6.0	6.7	8.0	8.0	7.0	6.7	7.0	7.0
TOURSTAR	70.0	7.0	7.7	7.7	7.0	6.3	6.0	6.7	8.0	8.0	7.0	6.7	7.3	7.0
BRIGHTSTAR II	71.7	7.0	7.7	8.0	7.7	6.7	5.7	6.3	7.3	8.0	7.0	6.3	7.0	6.9
CEBECO BLEND 1	76.7	6.3	7.3	8.3	7.7	6.7	5.7	6.0	7.7	8.0	7.0	6.3	6.7	6.9
FIESTA 3	68.3	7.0	7.7	7.7	7.7	6.7	5.7	6.0	8.0	8.0	6.7	6.0	7.0	6.9
MED-007	73.3	6.7	7.0	8.0	7.0	6.3	6.0	6.7	7.7	8.0	7.0	6.3	7.3	6.9
ALLSPORT	71.7	7.0	7.7	8.0	7.7	6.3	5.3	6.3	7.7	7.7	6.7	6.7	7.0	6.8
CAPRI	73.3	5.3	6.7	8.0	7.0	6.3	6.0	6.0	7.0	7.7	7.0	7.0	7.0	6.8
ELFKIN	73.3	7.0	8.0	8.0	7.3	6.3	5.7	6.7	7.7	8.0	6.7	6.0	7.0	6.8
LEADERBOARD	75.0	6.3	7.3	8.0	7.3	6.3	5.7	6.3	7.7	8.0	6.7	6.0	7.0	6.8
PROFESSIONAL'S SELECT	71.7	7.0	7.3	7.7	7.3	6.3	5.7	6.7	7.7	8.0	6.7	6.0	7.0	6.8
TOP HAT	70.0	6.7	7.3	8.3	7.0	6.3	5.3	6.3	7.7	8.0	7.0	6.7	7.0	6.8
BARLENNIUM	78.3	7.0	7.7	8.0	7.3	6.7	6.3	6.3	7.7	8.0	5.7	5.7	6.7	6.7
CITATION III	68.3	7.0	7.3	7.7	7.3	6.3	5.3	6.0	7.7	8.0	6.7	5.7	7.0	6.7
MOUNTAIN VIEW 1	66.7	6.7	7.3	7.7	7.3	6.3	5.3	6.0	7.7	7.7	6.7	6.0	7.0	6.7
MP58	65.0	7.0	8.0	7.3	6.7	6.3	5.7	6.3	7.7	8.0	7.0	6.3	6.7	6.7
PARAGON	75.0	7.0	7.7	8.0	7.3	6.3	5.3	6.3	7.7	8.0	6.7	6.3	6.7	6.7
PIROUETTE	73.3	7.0	7.0	7.7	7.3	6.3	5.3	6.3	7.7	8.0	6.7	6.0	7.0	6.7
CHARGER	68.3	5.7	6.3	8.3	7.0	6.0	5.3	6.0	7.3	8.0	6.7	6.0	7.0	6.6
CHARGER II	75.0	7.0	7.3	8.0	7.0	6.0	5.7	6.0	7.3	8.0	6.3	5.7	7.0	6.6
FIRST CUT	78.3	5.7	7.3	7.7	7.3	6.3	6.0	6.3	7.3	7.7	6.3	5.3	6.7	6.6
MOUNTAIN VIEW 2	75.0	6.3	7.3	7.7	7.7	6.0	5.3	6.3	7.3	7.7	6.3	5.7	7.0	6.6
MOUNTAIN VIEW 3	63.3	6.7	7.3	7.0	6.7	6.0	5.3	5.7	7.3	8.0	7.0	6.3	7.0	6.6
MP111	73.3	7.0	8.0	7.3	7.3	6.3	5.7	6.3	7.3	7.7	6.3	5.7	7.0	6.6
PRIME	75.0	7.0	7.7	7.7	7.7	6.3	5.7	6.3	7.3	8.0	6.3	5.3	6.7	6.6
CITATION III + WINTERSTAR	65.0	5.3	6.3	7.3	7.0	6.3	5.7	6.0	7.0	7.3	6.3	5.0	6.7	6.4
FUTURA 2500	66.7	5.7	6.3	8.0	6.7	6.0	5.7	6.0	7.0	7.0	6.0	6.0	7.0	6.4
MARVELGREEN SUPREME	75.0	6.7	7.3	8.0	7.0	6.0	5.3	6.0	7.3	7.7	6.3	5.7	6.7	6.4
PHANTOM	70.0	7.0	7.3	7.7	7.0	6.0	5.3	5.7	7.0	7.7	6.3	6.0	7.0	6.4
BRIGHTSTAR II + WINTERPLAY	66.7	5.7	6.3	7.3	7.0	6.0	5.7	6.0	7.0	7.7	6.0	5.0	6.7	6.3
MARVELGREEN + LASER	71.7	5.3	6.7	8.0	7.0	6.0	5.3	6.0	6.7	7.3	6.0	5.3	7.0	6.3
PICK HR A-97	73.3	5.7	6.3	7.7	7.0	6.0	5.3	5.7	6.7	7.3	6.0	5.3	7.0	6.3
TRANSIST	68.3	5.0	6.0	8.7	6.3	5.7	5.7	6.0	7.0	6.7	6.3	6.0	7.0	6.3
SNOWBIRD	50.0	4.0	5.7	5.0	6.0	6.0	5.7	5.7	6.3	7.0	5.3	4.0	7.0	5.9
ABT-99-3.268	68.3	3.0	5.0	9.0	6.0	5.7	5.3	5.7	6.0	6.0	5.3	4.7	7.0	5.7
PROAM	46.7	4.0	6.0	4.3	5.7	5.3	5.0	5.7	6.3	7.0	5.7	4.0	6.7	5.7
WINTERPLAY	43.3	4.0	6.0	4.3	5.7	5.3	5.0	5.3	6.3	7.0	5.3	3.7	7.0	5.6
BARIVIERA	46.7	4.0	6.0	4.0	5.0	5.0	5.0	5.0	6.3	6.7	6.0	3.7	7.0	5.5
SABRE	40.0	3.7	6.0	4.7	5.3	5.3	5.0	5.0	5.7	6.3	5.3	4.0	6.7	5.4
LSD VALUE	10.5	0.6	0.7	0.8	0.6	0.9	1.4	0.9	0.8	0.7	0.8	1.1	1.5	0.4
C.V. (%)	9.7	7.0	6.1	7.3	6.0	7.6	8.9	7.7	6.4	5.4	7.3	11.9	5.2	4.0

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

TABLE 6A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT CRESCENT, MO (PLAYER CLUB AT ST. LOUIS)

SEEDBED PREPARATION

Spray bermudagrass with Primo one week before overseeding (11 oz./A.)

MOWING

Initial height 0.60"  
 mowing height during test 0.80"  
 Frequency 3 times per week  
 Type of mower Light weight 5-plex

FERTILIZATION

Date(s)	Product	Rate (lbs./M)
23-Sep-99	5-10-20	1 lbs. N
13-Apr-00	24-3-11 (SCU)	1 lbs. N
6-Jun-00	14-4-14 (SCU)	1 lbs. N
13-Jul-00	14-4-14 (SCU)	1 lbs. N

FUNGICIDES

CULTIVATION

Aerification - dates  
 Aerification - type  
 Verticutting  
 Dates of topdressing  
 Other cultural practices

Date(s)	Product	Rate (oz./M)
23-Sep-99	Primo	11 oz./Acre

HERBICIDES

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

Lower cutting height, fertilize heavy, cut down on irrigation back to 0.6"

Date(s)	Product	Rate (oz./M)
17-Jan-22	Prograss	0.75 gallon/Acre
6-Mar-00	Ronstar Preemergence	4.5 lbs./Acre

INSECTICIDES

OTHER INFORMATION

Course closed for overseeding Yes, for 1 week  
 Landing area Yes, none more than normal  
 Divoting problem  
 Cart allowed on Test area Yes  
 Traffic patterns no

Date(s)	Product	Rate (oz./M)
None		

OTHER PRODUCTS

Date(s)	Product	Rate (oz./M)
None		

NOTES/COMMENTS

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 6B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT CRESCENT (ST. LOUIS), MO (PLAYERS CLUB AT ST. LOUIS) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	FALL PERCENT COVER		WINTER PERCENT COVER IN 2000			PERCENT COVER OF GRASSES IN SPRING/SUMMER IN 2000					
	BERMUDA	OVERSEED	BERMUDA	OVERSEED	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED
	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS
	11/18/99	11/18/99	2/18	2/18	3/17	5/17	5/17	6/16	6/16	7/5	7/5
PARAGON	10	65.0	99	61.7	76.7	11.7	88.3	38.3	61.7	88.3	11.7
PHANTOM	10	56.7	99	50.0	66.7	20.0	80.0	43.3	56.7	78.3	21.7
CHARGER II	10	55.0	99	53.3	71.7	13.3	86.7	46.7	53.3	85.0	15.0
CITATION III + WINTERSTAR	10	51.7	99	58.3	70.0	11.7	88.3	31.7	68.3	81.7	18.3
ELFKIN	10	58.3	99	55.0	75.0	11.7	88.3	38.3	61.7	65.0	35.0
MOUNTAIN VIEW 3	10	56.7	99	55.0	73.3	16.7	83.3	38.3	61.7	86.7	13.3
MARVELGREEN SUPREME	10	45.0	99	40.0	65.0	20.0	80.0	45.0	55.0	86.7	13.3
MOUNTAIN VIEW 2	10	56.7	99	53.3	70.0	18.3	81.7	36.7	63.3	81.7	18.3
MP58	10	45.0	99	48.3	63.3	18.3	81.7	46.7	53.3	85.0	15.0
PROFESSIONAL'S SELECT	10	46.7	99	53.3	71.7	23.3	76.7	43.3	56.7	83.3	16.7
BARLENNIUM	10	43.3	99	45.0	66.7	21.7	78.3	43.3	56.7	85.0	15.0
CITATION III	10	45.0	99	40.0	60.0	21.7	78.3	60.0	40.0	86.7	13.3
FIESTA 3	10	38.3	99	50.0	68.3	16.7	83.3	46.7	53.3	76.7	23.3
PST-3BK-99	10	48.3	99	45.0	65.0	20.0	80.0	63.3	36.7	91.7	8.3
TOURSTAR	10	51.7	99	46.7	68.3	18.3	81.7	53.3	46.7	73.3	26.7
ALLSPORT	10	33.3	99	46.7	60.0	21.7	78.3	41.7	58.3	88.3	11.7
BRIGHTSTAR II + WINTERPLAY	10	38.3	99	53.3	58.3	25.0	75.0	43.3	56.7	78.3	21.7
CHARGER	10	43.3	99	53.3	68.3	16.7	83.3	50.0	50.0	85.0	15.0
FIRST CUT	10	31.7	99	51.7	61.7	25.0	75.0	43.3	56.7	93.3	6.7
LEADERBOARD	10	46.7	99	56.7	75.0	18.3	81.7	41.7	58.3	80.0	20.0
LS-DE1	10	35.0	99	41.7	61.7	28.3	71.7	48.3	48.3	80.0	20.0
MOUNTAIN VIEW 1	10	53.3	99	48.3	66.7	18.3	81.7	43.3	56.7	86.7	43.3
SEVILLE II	10	46.7	99	45.0	65.0	21.7	78.3	41.7	58.3	58.3	18.3
TOP HAT	10	40.0	99	35.0	63.3	18.3	81.7	46.7	53.3	81.7	18.3
FUTURA 2500	10	40.0	99	40.0	61.7	23.3	76.7	56.7	43.3	76.7	23.3
MED-007	10	46.7	99	41.7	55.0	20.0	80.0	45.0	55.0	85.0	15.0
CAPRI	10	38.3	99	38.3	68.3	18.3	81.7	56.7	43.3	83.3	16.7
MARVELGREEN + LASER	10	50.0	99	38.3	56.7	31.7	68.3	48.3	51.7	75.0	25.0
PRIME	10	33.3	99	35.0	61.7	21.7	78.3	38.3	61.7	81.7	18.3
TRANSIST	10	45.0	99	40.0	67.5	25.0	75.0	72.5	27.5	82.5	22.5
BRIGHTSTAR II	10	38.3	99	41.7	51.7	26.7	73.3	60.0	40.0	90.0	10.0
CEBECO BLEND 1	10	35.0	99	40.0	65.0	23.3	76.7	61.7	38.3	83.3	16.7
MP111	10	21.7	99	31.7	58.3	30.0	70.0	56.7	43.3	86.7	13.3
PICK HR A-97	10	30.0	99	33.3	55.0	40.0	60.0	61.7	38.3	81.7	18.3
PIROUETTE	10	41.7	99	28.3	51.7	35.0	65.0	61.7	38.3	85.0	15.0
ABT-99-3.268	10	41.7	99	28.3	65.0	20.0	76.7	76.7	23.3	85.0	15.0
ESSENCE	10	40.0	99	28.3	48.3	33.3	66.7	48.3	48.3	81.7	18.3
SABRE	10	33.3	99	50.0	43.3	38.3	61.7	48.3	51.7	78.3	21.7
PROAM	10	18.3	99	48.3	41.7	51.7	48.3	58.3	41.7	88.3	11.7
WINTERPLAY	10	20.0	99	41.7	33.3	50.0	50.0	51.7	48.3	85.0	15.0
SNOWBIRD	10	31.7	99	53.3	33.3	71.7	28.3	53.3	46.7	68.3	31.7
BARIVIERA	10	18.3	99	31.7	38.3	53.3	46.7	65.0	35.0	81.7	18.3
LSD VALUE	-	61.2	-	27.8	20.8	20.3	20.2	53.5	56.5	35.0	38.0
C.V. (%)	0	43.8	0	26.2	18.4	45.8	15.6	32.7	33.1	13.3	62.6

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

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

TABLE 6B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT CRESCENT (ST. LOUIS), MO (PLAYERS CLUB AT ST. LOUIS)  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT	GENETIC COLOR	WINTER COLOR	FALL QUALITY		WINTER QUALITY		SPRING/SUMMER QUALITY IN 2000				QUALITY MEAN
	EARLY ESTABLISHED			10/22/99	11/8/99	2/18/00	3/17/00	4/13	5/17	6/6	7/5	
PARAGON	30.0	7.3	4.3	6.7	4.7	4.3	5.3	6.3	7.0	6.3	7.0	6.0
PHANTOM	30.0	7.3	4.0	7.0	4.7	4.0	5.0	5.3	7.0	6.3	6.7	5.8
CHARGER II	31.7	7.0	3.3	7.0	4.7	3.0	5.3	6.0	6.7	6.0	6.7	5.7
CITATION III + WINTERSTAR	23.3	7.7	4.0	6.7	4.7	4.0	5.3	6.0	6.3	6.0	6.7	5.7
ELFKIN	23.3	7.3	3.7	6.3	4.7	3.7	5.3	6.3	7.0	6.3	6.0	5.7
MOUNTAIN VIEW 3	30.0	7.3	3.7	6.3	4.7	4.0	5.3	5.7	6.7	6.0	6.7	5.7
MARVELGREEN SUPREME	30.0	7.0	3.0	6.7	4.0	3.7	4.7	5.7	6.7	6.3	7.0	5.6
MOUNTAIN VIEW 2	20.0	7.0	3.7	5.7	4.7	4.0	5.0	5.7	6.7	6.0	6.3	5.5
MP58	21.7	7.7	4.0	6.3	4.0	3.7	5.0	5.7	6.7	6.0	6.7	5.5
PROFESSIONAL'S SELECT	23.3	7.3	3.7	6.7	4.3	3.7	5.0	5.3	6.3	6.3	6.7	5.5
BARLENNIUM	16.7	7.0	3.7	5.7	4.3	3.3	5.0	5.0	7.0	6.0	7.0	5.4
CITATION III	18.3	7.7	3.7	5.7	4.0	3.0	4.7	5.3	6.7	6.7	7.0	5.4
FIESTA 3	20.0	7.0	3.7	6.0	3.7	4.0	5.0	5.0	7.0	6.3	6.3	5.4
PST-3BK-99	16.7	6.3	4.0	5.7	4.0	3.7	4.7	5.0	6.7	6.3	7.0	5.4
TOURSTAR	20.0	6.7	3.3	6.0	4.3	3.7	5.3	5.3	6.3	6.3	6.0	5.4
ALLSPORT	20.0	7.0	4.0	5.7	3.3	3.7	4.7	5.0	6.7	6.3	6.7	5.3
BRIGHTSTAR II + WINTERPLAY	11.7	7.3	4.0	5.7	4.0	3.7	4.0	5.0	7.0	6.3	6.7	5.3
CHARGER	23.3	6.3	3.0	6.7	4.0	3.3	4.7	5.3	6.0	6.0	6.7	5.3
FIRST CUT	23.3	6.3	4.3	6.3	3.7	3.3	4.3	5.0	6.0	6.3	7.0	5.3
LEADERBOARD	20.0	6.7	4.0	5.7	4.0	3.7	5.3	5.3	6.0	6.3	6.3	5.3
LS-DE1	20.0	7.0	3.3	6.3	4.0	3.3	4.7	4.3	6.7	6.3	6.7	5.3
MOUNTAIN VIEW 1	20.0	6.7	2.7	6.0	4.7	3.7	4.7	5.3	5.7	6.0	6.7	5.3
SEVILLE II	18.3	7.7	3.7	5.7	3.7	3.3	5.0	5.7	6.3	6.0	6.7	5.3
TOP HAT	15.0	6.3	2.3	5.3	4.0	2.7	4.7	5.7	6.7	6.3	6.7	5.3
FUTURA 2500	20.0	6.7	3.3	5.7	4.0	3.3	4.7	5.7	6.0	6.0	6.3	5.2
MED-007	23.3	7.3	3.7	6.3	3.7	3.0	4.3	5.3	6.7	6.0	6.3	5.2
CAPRI	20.0	6.0	2.7	6.0	3.3	3.0	5.3	5.3	5.7	5.7	6.3	5.1
MARVELGREEN + LASER	18.3	7.0	3.3	5.7	4.0	3.0	4.3	4.7	6.7	6.3	6.3	5.1
PRIME	16.7	7.0	3.7	5.7	3.3	3.0	4.7	5.3	6.3	6.0	6.7	5.1
TRANSIST	12.5	5.0	3.5	6.5	4.5	3.0	4.5	4.5	4.5	6.5	6.5	5.1
BRIGHTSTAR II	21.7	8.0	3.7	5.7	4.0	2.7	3.7	4.7	6.0	6.7	7.0	5.0
CEBECO BLEND 1	21.7	5.7	3.0	5.7	3.7	3.3	4.7	4.7	6.0	6.3	6.0	5.0
MP111	13.3	7.3	3.3	5.3	3.0	3.0	4.3	4.3	6.7	6.7	6.7	5.0
PICK HR A-97	15.0	5.7	3.3	6.0	3.7	3.0	4.0	4.3	5.7	6.3	6.7	5.0
PIROUETTE	8.3	7.0	2.7	5.7	4.0	2.3	3.7	4.3	6.3	6.7	6.7	5.0
ABT-99-3.268	30.0	3.3	2.7	6.3	4.3	2.7	4.3	4.3	4.7	6.0	6.7	4.9
ESSENCE	10.0	7.0	2.3	5.0	3.7	2.3	4.0	4.7	6.3	6.3	6.7	4.9
SABRE	30.0	5.7	4.7	6.3	3.7	3.3	3.3	4.0	6.0	6.3	6.3	4.9
PROAM	11.7	6.0	5.0	5.7	2.7	3.7	3.3	3.0	6.0	6.3	7.0	4.7
WINTERPLAY	10.0	5.3	4.0	5.3	2.7	3.0	3.3	3.0	6.3	6.3	6.7	4.6
SNOWBIRD	10.0	5.3	5.3	5.0	3.7	4.3	3.0	2.3	5.7	6.0	6.0	4.5
BARIVIERA	8.3	5.3	4.7	5.3	2.7	2.3	3.3	2.7	5.3	6.0	6.7	4.3
LSD VALUE	20.9	1.1	1.4	1.4	2.6	2.0	1.6	1.5	1.8	1.9	1.9	0.8
C.V. (%)	43.8	10.5	20.1	10.9	21.8	22.0	16.9	17.3	11.8	7.3	7.9	7.4

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

TABLE 7A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT MYRTLE BEACH, SC (BLACKMOOR GOLF COURSE)

SEEDBED PREPARATION

Medium verticutting, debris removed by blower. Cutting height 1/2" at seeding.  
Aeroway slicer used on September 20-22.

MOWING

Initial height 1/2"  
mowing height during test 9/20"  
Frequency 2-3 times per week  
Type of mower 4500 Fairway Mower

FERTILIZATION

Date(s)	Product	Rate (lbs./M)
12-Sep-99	80% SCU (20-10-20)	1 lb. N
12-Nov-99	90% SCU (20-10-20)	1 lb. N
2-Feb-00	21-0-0 (water soluble)	1 lb. N
7-Mar-00	90% SCU (17-5-17)	250 lbs./Acre
2-May-00	100% SCU (18-9-18)	240 lbs./Acre

FUNGICIDES

CULTIVATION

Aerification - dates Feb. 17-19  
Aerification - type Aeroway slicer  
Verticutting No additional verticutting after estab.  
Dates of topdressing  
Other cultural practices

Date(s)	Product	Rate (oz./M)
None		

HERBICIDES

Date(s)	Product	Rate (oz./M)
None		

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

Reducing water applications when possible

INSECTICIDES

Date(s)	Product	Rate (oz./M)
None		

OTHER PRODUCTS

OTHER INFORMATION

Date(s)	Product	Rate (oz./M)
17-Dec-99	Plant growth regulator - SCOTTS TGR	16 oz./Acre
16-Feb-00	Plant growth regulator - SCOTTS TGR	24 oz./Acre
14-Mar-00	Plant growth regulator - SCOTTS TGR	16 oz./Acre

Course closed for overseeding No  
Landing area Yes, received full traffic and divoting  
Divoting problem No, divots were routinely filled with sand on entire course  
Cart allowed on Test area Yes, received full traffic  
Traffic patterns No problem evident

NOTES/COMMENTS

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 7B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT MYRTLE BEACH, SC (BLACKMOOR GOLF COURSE) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	FALL PERCENT COVER IN 1999				WINTER % COVER		PERCENT COVER OF LIVING GRASSES IN SPRING/SUMMER IN 2000						
	BERMUDA GRASS	OVERSEED GRASS	OVERSEED GRASS	OVERSEED GRASS	OVERSEED GRASS	OVERSEED GRASS	OVERSEED GRASS	OVERSEED GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS
	10/19	10/19	12/7	12/30	1/17/00	2/17/00	3/29	4/17	5/4	5/31	5/31	7/6	7/6
CHARGER	61.7	36.7	43.3	51.0	47.3	52.3	80.0	80.7	46.7	45.0	55.0	86.3	7.3
CHARGER II	70.0	33.0	49.0	50.7	37.0	65.0	63.3	74.3	56.7	63.3	33.3	82.3	10.0
PHANTOM	73.3	26.3	58.7	43.3	52.3	48.7	68.0	68.3	38.3	63.3	36.7	74.3	14.0
PICK HR A-97	80.0	21.0	28.3	41.0	47.3	65.7	75.0	80.3	48.3	65.0	33.3	68.3	18.3
MARVELGREEN + LASER	66.7	34.3	50.7	40.7	48.7	51.3	56.7	67.7	55.0	45.0	55.0	84.3	7.3
CEBECO BLEND 1	80.0	22.3	39.3	38.0	43.0	48.3	66.7	69.3	50.0	53.3	46.7	73.0	12.7
PROAM	68.3	35.7	41.7	51.3	60.0	61.7	73.3	83.3	68.3	38.3	56.7	77.7	10.7
FIESTA 3	76.7	24.3	44.7	37.7	44.3	52.3	61.7	72.7	46.7	51.7	45.0	77.7	14.3
SNOWBIRD	73.3	29.7	41.0	39.7	54.7	58.7	68.3	72.7	66.7	43.3	53.3	70.0	15.0
TOURSTAR	60.0	40.7	48.3	40.3	49.0	52.3	59.3	70.0	51.7	61.7	31.7	75.0	11.7
ABT-99-3.268	76.7	21.7	30.3	27.3	33.7	54.3	77.3	75.7	65.0	56.7	41.7	77.3	12.7
BARVIERA	73.3	27.0	44.0	46.0	46.7	56.3	61.0	71.7	63.3	38.3	61.7	81.7	11.7
BARLENNIUM	66.7	32.0	43.3	41.0	51.3	50.0	60.0	70.7	45.7	60.0	40.0	82.7	9.7
CITATION III + WINTERSTAR	71.7	27.3	36.7	38.0	41.7	51.3	53.3	63.3	41.7	40.0	56.7	71.7	14.7
LEADERBOARD	80.0	19.7	42.7	41.3	49.0	47.3	58.3	59.3	45.0	55.0	41.7	71.0	15.7
MOUNTAIN VIEW 2	75.0	26.3	45.0	41.0	43.0	50.3	50.7	53.3	45.0	63.3	35.0	82.0	9.7
TRANSIST	76.7	20.7	30.7	33.0	39.3	47.7	73.7	73.3	65.0	60.0	33.3	75.0	15.0
FUTURA 2500	76.7	26.7	41.7	37.7	42.3	50.7	61.0	68.3	48.3	58.3	38.3	84.0	6.0
MARVELGREEN SUPREME	71.7	30.3	52.7	48.0	43.0	45.0	56.0	62.7	48.3	58.3	38.3	72.7	12.3
ALLSPORT	86.7	16.0	38.7	36.3	40.7	46.3	54.0	65.0	38.3	60.0	40.0	81.0	6.7
CAPRI	80.0	20.7	40.3	33.0	41.0	47.3	64.3	62.7	53.3	46.7	53.3	81.7	10.0
FIRST CUT	86.7	14.3	37.0	40.7	46.0	49.0	45.0	55.3	46.0	56.7	40.0	74.0	12.7
MED-007	81.7	20.7	44.3	41.3	44.0	45.3	59.3	53.3	43.3	58.3	40.0	77.7	8.0
SABRE	71.7	29.3	47.7	50.3	57.0	61.3	67.7	64.3	56.7	33.3	63.3	72.7	14.0
WINTERPLAY	80.0	20.0	26.7	31.7	38.3	51.7	49.0	67.3	58.3	43.3	45.0	78.0	16.3
CITATION III	63.3	36.0	40.3	37.0	41.0	49.0	52.3	56.7	41.7	70.0	25.0	81.0	10.3
PARAGON	71.7	30.0	44.3	46.0	46.0	46.0	49.0	49.0	45.0	51.7	46.7	80.0	11.7
PIROUETTE	86.7	16.0	37.7	40.7	38.7	39.7	64.0	66.7	25.0	63.3	33.3	80.0	9.0
PRIME	78.3	20.7	44.0	36.7	41.7	45.3	51.7	59.3	43.3	55.0	41.7	75.0	13.3
PROFESSIONAL'S SELECT	76.7	23.0	31.7	36.3	39.7	44.3	47.3	62.3	51.7	60.0	33.3	71.7	21.7
BRIGHTSTAR II	80.0	21.3	40.0	41.0	38.7	46.3	48.3	56.0	48.0	61.7	35.0	80.0	11.7
ESSENCE	71.7	25.3	37.0	32.7	36.7	43.7	52.7	58.0	43.3	61.7	36.7	83.3	8.3
LS-DEL	86.7	16.3	42.0	40.7	42.3	42.3	57.7	56.7	50.0	58.3	35.0	80.0	9.3
MOUNTAIN VIEW 1	83.3	17.7	44.3	39.7	43.7	45.7	54.3	47.3	43.3	53.3	43.3	78.3	13.3
TOP HAT	73.3	29.7	41.3	35.7	44.3	49.0	62.7	58.3	50.0	43.3	43.3	82.3	9.0
BRIGHTSTAR II + WINTERPLAY	80.0	18.3	31.3	34.0	38.0	43.0	48.3	62.7	41.7	60.0	36.7	76.7	14.0
EPT-3BK-99	80.0	20.0	33.0	29.7	34.7	45.7	46.3	48.3	48.3	55.0	45.0	66.7	11.7
ELFKIN	85.0	14.3	39.7	29.0	37.3	42.3	49.0	56.7	41.7	53.3	36.3	80.7	9.0
MP58	86.7	12.3	33.7	30.0	37.3	37.3	43.0	45.0	40.0	60.0	40.0	66.7	15.0
SEVILLE II	90.0	9.0	33.0	33.7	35.0	40.0	45.7	53.3	31.7	51.7	46.7	71.0	14.0
MOUNTAIN VIEW 3	88.3	10.0	39.3	35.7	38.0	39.3	45.3	51.7	38.3	57.3	33.3	78.3	7.7
MP111	90.0	7.0	31.0	32.0	35.0	40.0	42.3	48.0	46.7	56.7	31.7	78.3	11.7
LSD VALUE	23.9	21.1	24.3	14.0	23.0	13.9	30.0	26.5	18.9	25.4	28.5	22.9	18.6
C.V. (%)	13.2	42.1	23.7	18.1	20.3	15.0	22.5	19.4	20.7	20.2	28.5	10.0	46.5

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

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

TABLE 7B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT MYRTLE BEACH, SC (BLACKMOOR GOLF COURSE)  
1999-2000 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	GENETIC COLOR	WINTER COLOR	DOLLAR SPOT 4/17/00	POA ANNUA 4/17/00	FALL QUALITY 12/7/99	WINTER QUALITY IN 2000		SPRING/SUMMER QUALITY RATINGS IN 2000						QUALITY MEAN
						1/17	2/17	3/6	3/29	4/17	5/4	5/31	7/6	
CHARGER	5.7	5.7	7.0	7.3	5.3	5.0	5.3	6.0	7.0	7.7	7.3	7.3	7.3	6.5
CHARGER II	7.7	6.3	7.7	8.3	5.0	5.7	6.0	6.0	6.3	6.7	7.0	6.3	7.3	6.3
PHANTOM	7.0	6.7	6.7	8.3	5.3	5.3	5.3	5.7	6.3	7.0	7.0	7.3	7.0	6.3
PICK HR A-97	6.3	3.3	8.0	8.0	4.7	5.0	6.0	6.3	7.0	7.7	7.7	6.3	6.0	6.3
MARVELGREEN + IASER	7.0	5.7	7.3	8.0	5.0	5.0	5.7	5.3	6.0	6.7	7.3	7.0	7.7	6.2
CEBECO BLEND 1	7.0	6.3	6.3	8.0	4.3	4.7	4.7	5.7	6.7	7.0	7.3	6.7	6.7	6.0
PROAM	4.7	3.0	4.7	8.0	4.7	5.7	6.0	6.0	6.7	6.3	6.7	5.3	6.7	6.0
FIESTA 3	7.0	5.3	7.7	6.7	5.0	5.0	5.0	5.3	5.7	6.3	7.0	6.0	6.7	5.8
SNOWBIRD	4.7	3.3	4.7	8.3	4.0	5.3	5.7	6.0	6.3	6.7	6.0	5.3	6.7	5.8
TOURSTAR	7.0	6.7	7.7	8.7	4.7	5.0	5.0	5.7	6.0	7.0	7.3	5.7	6.0	5.8
ABT-99-3.268	3.0	1.0	9.0	8.3	4.7	4.3	5.7	5.3	6.0	7.0	7.3	4.0	7.0	5.7
BARIVIERA	5.3	3.3	5.3	8.0	4.7	5.3	5.3	5.3	6.0	6.0	5.7	6.7	6.7	5.7
BARLENNIUM	8.0	6.3	6.7	6.7	5.0	5.0	5.3	5.3	6.0	5.7	6.7	6.0	6.7	5.7
CITATION III + WINTERSTAR	6.3	4.3	6.7	6.7	4.7	5.3	5.0	5.3	5.7	5.7	6.0	6.7	6.7	5.7
LEADERBOARD	7.3	6.7	6.7	6.7	4.7	5.0	5.0	5.3	5.7	6.0	7.3	6.0	6.3	5.7
MOUNTAIN VIEW 2	6.7	4.3	5.3	8.0	5.0	5.0	5.3	5.3	5.7	5.0	6.0	6.7	7.0	5.7
TRANSIST	4.7	2.0	7.3	8.0	4.3	4.7	5.0	5.3	6.0	6.7	6.7	5.7	6.7	5.7
FUTURA 2500	6.3	5.7	6.3	7.7	4.3	4.3	5.0	5.3	6.0	6.3	6.3	5.7	6.7	5.6
MARVELGREEN SUREME	7.0	6.3	7.3	8.0	5.3	4.3	4.7	5.7	5.3	6.0	6.3	6.0	6.3	5.6
ALLSPORT	7.0	6.0	6.0	7.3	5.0	4.7	4.7	5.0	5.3	5.7	6.3	6.3	6.7	5.5
CAPRI	4.3	3.3	6.7	6.7	4.3	5.0	4.7	4.7	5.7	5.7	6.0	6.7	7.0	5.5
FIRST CUT	7.0	5.0	7.0	6.3	5.0	5.0	5.3	5.3	5.0	5.3	6.3	6.0	6.3	5.5
MED-007	7.3	6.3	7.7	5.7	4.7	4.7	5.0	5.3	6.0	5.3	6.0	6.0	6.3	5.5
SABRE	4.7	2.0	6.0	8.7	5.0	5.0	5.7	4.7	5.7	5.3	5.3	6.7	6.3	5.5
WINTERPLAY	5.7	3.0	6.3	7.7	4.0	5.0	5.0	5.0	5.0	6.0	6.7	5.7	7.3	5.5
CITATION III	8.3	7.0	6.7	8.3	4.7	4.7	5.3	5.0	5.0	5.3	6.0	5.3	7.3	5.4
PARAGON	8.0	6.7	6.7	8.0	4.7	5.0	5.0	5.0	5.3	5.0	5.7	6.0	7.3	5.4
PIROUETTE	7.3	7.0	5.7	5.3	5.0	4.7	4.3	5.0	6.0	5.7	5.7	6.0	6.7	5.4
PRIME	7.3	6.7	6.7	6.0	4.7	5.0	4.7	5.0	5.0	5.0	6.0	6.0	7.3	5.4
PROFESSIONAL'S SELECT	6.3	5.7	6.7	7.0	4.7	4.7	4.3	5.3	5.0	5.3	6.7	5.3	7.0	5.4
BRIGHTSTAR II	8.0	6.7	7.7	8.0	4.7	4.7	4.3	4.7	5.0	5.3	6.3	5.3	7.0	5.3
ESSENCE	6.3	4.7	5.3	6.7	4.7	5.0	5.0	5.0	5.3	5.3	6.3	4.7	6.3	5.3
LS-DE1	7.7	6.7	6.0	6.7	5.0	4.7	4.7	4.7	5.3	5.0	7.0	4.7	7.3	5.3
MOUNTAIN VIEW 1	6.7	5.3	6.3	8.0	5.0	4.7	5.0	5.3	5.3	4.3	5.7	5.7	7.0	5.3
TOP HAT	6.3	4.7	7.7	8.0	4.7	4.3	4.7	4.7	5.7	5.3	6.0	4.3	7.3	5.2
BRIGHTSTAR II + WINTERPLAY	7.3	5.0	7.0	7.0	4.3	4.3	4.3	4.7	5.3	5.3	6.0	5.3	6.7	5.1
PST-3BK-99	8.0	6.7	8.0	7.0	4.3	4.7	5.0	4.3	5.0	4.7	5.3	7.0	6.0	5.1
ELFKIN	7.0	5.3	6.3	7.0	4.3	4.0	4.3	4.7	5.0	5.3	5.7	4.7	7.0	5.0
MP58	7.7	6.3	6.0	6.0	4.3	4.3	4.0	4.0	5.0	4.3	6.0	5.7	6.3	4.9
SEVILLE II	8.0	6.0	6.0	6.7	4.0	4.0	4.3	4.3	5.0	5.0	4.7	6.0	6.3	4.9
MOUNTAIN VIEW 3	7.0	5.7	7.0	7.0	4.7	4.0	4.0	4.7	5.0	4.7	5.0	5.0	6.3	4.8
MP111	7.7	5.7	7.0	7.0	4.0	4.3	4.0	4.3	4.7	4.3	4.7	4.3	6.7	4.6
LSD VALUE	1.0	1.5	3.1	2.8	1.4	1.4	1.8	1.9	2.6	2.4	3.2	3.5	2.9	1.2
C.V. (%)	10.1	18.9	18.8	15.6	11.0	11.7	15.0	14.2	16.0	18.9	17.9	21.0	11.4	9.5

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

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

TABLE 8A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT GARLAND (DALLAS), TX (FIRE WHEEL GOLF PARK)

SEEDBED PREPARATION

Mowing height from 1/2" down to 3/8", fertilized 1 lb. of N. with 15-5-10, sliced in two directions to help water infiltration.

FERTILIZATION

Date(s)	Product	Rate (lbs./M)
28-Sep-99	15-5-10 Ag. Grade	1 lb. K
6-Dec-99	15-5-10-2% Iron	1 lb. K
24-Apr-00	18-6-15-2% Iron	1 lb. K

MOWING

Initial height	1/2"
mowing height during test	3/8" at seeding, 1/2" when established
Frequency	3 times per week
Type of mower	John Deere 3235 fiveplex

FUNGICIDES

Date(s)	Product	Rate (oz./M)
None		

CULTIVATION

Aerification - dates	10/13-14/ 99 - Sliced (Ryan fairway unit.)
Aerification - type	3/6-7/00 - Aerated (open spoon 3/4" Ryan unit.)

HERBICIDES

Date(s)	Product	Rate (oz./M)
None		

Verticutting  
 Dates of topdressing  
 Other cultural practices

INSECTICIDES

Date(s)	Product	Rate (oz./M)
None		

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

OTHER PRODUCTS

OTHER INFORMATION

Date(s)	Product	Rate (oz./M)
None		

Course closed for overseeding	Yes, just for the day to seed
Landing area	Yes
Divoting problem	no
Cart allowed on Test area	Yes
Traffic patterns	no

NOTES/COMMENTS

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 8B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT GARLAND (DALLAS), TX (FIRE WHEEL GOLF PARK) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	PERCENT COVER OF LIVING GRASSES IN FALL TRANSITION PERIOD IN 1999										WINTER PERCENT COVER	
	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	BERMUDA GRASS	OVERSEED GRASS	DORMANCY BERMUDA GRASS	LIVING OVERSEED GRASS
	10/11	10/11	10/18	10/18	11/16	11/16	11/23	11/23	11/29	11/29	1/7/00	1/7/00
PROFESSIONAL'S SELECT	60.0	40.0	45.0	55.0	60.0	40.0	50.0	50.0	26.7	73.3	36.7	63.3
CHARGER II	63.3	36.7	56.7	43.3	68.3	31.7	68.3	31.7	43.3	56.7	36.7	63.3
TOURSTAR	51.7	48.3	45.0	55.0	58.3	41.7	58.3	41.7	38.3	61.7	38.3	61.7
MOUNTAIN VIEW 1	51.7	48.3	40.0	60.0	63.3	36.7	56.7	43.3	41.7	58.3	48.3	51.7
ESSENCE	70.0	30.0	60.0	40.0	63.3	36.7	65.0	35.0	38.3	61.7	38.3	61.7
FIESTA 3	68.3	31.7	63.3	36.7	71.7	28.3	71.7	28.3	33.3	66.7	51.7	48.3
BRIGHTSTAR II	48.3	51.7	36.7	63.3	61.7	38.3	66.7	33.3	31.7	68.3	43.3	56.7
FUTURA 2500	65.0	35.0	36.7	63.3	70.0	30.0	56.7	43.3	33.3	66.7	43.3	56.7
MP58	81.7	18.3	66.7	33.3	75.0	25.0	71.7	28.3	48.3	51.7	53.3	46.7
PIROUETTE	65.0	35.0	56.7	43.3	73.3	26.7	76.7	23.3	48.3	51.7	51.7	48.3
SEVILLE II	63.3	36.7	55.0	45.0	66.7	33.3	66.7	33.3	45.0	55.0	36.7	63.3
LEADERBOARD	68.3	31.7	58.3	41.7	73.3	26.7	63.3	36.7	46.7	53.3	40.0	60.0
MED-007	63.3	36.7	66.7	33.3	71.7	28.3	63.3	36.7	45.0	55.0	46.7	53.3
MOUNTAIN VIEW 3	75.0	25.0	58.3	41.7	75.0	25.0	70.0	30.0	45.0	55.0	40.0	60.0
PHANTOM	63.3	36.7	50.0	50.0	70.0	30.0	65.0	35.0	45.0	55.0	46.7	53.3
BARLENNIUM	70.0	30.0	55.0	45.0	68.3	31.7	68.3	31.7	48.3	51.7	41.7	58.3
CEBECO BLEND 1	71.7	28.3	55.0	45.0	68.3	31.7	70.0	30.0	43.3	56.7	46.7	53.3
CITATION III	66.7	33.3	50.0	50.0	76.7	23.3	75.0	25.0	45.0	55.0	50.0	50.0
MARVELGREEN + LASER	71.7	28.3	51.7	48.3	71.7	28.3	66.7	33.3	40.0	60.0	50.0	50.0
TRANSIST	50.0	50.0	36.7	63.3	65.0	35.0	65.0	35.0	43.3	56.7	43.3	56.7
ALLSPORT	78.3	21.7	61.7	38.3	68.3	31.7	73.3	26.7	53.3	46.7	43.3	56.7
BRIGHTSTAR II + WINTERPLAY	73.3	26.7	53.3	46.7	78.3	21.7	76.7	23.3	38.3	61.7	43.3	56.7
CAPRI	61.7	38.3	50.0	50.0	66.7	33.3	68.3	31.7	40.0	60.0	45.0	55.0
MARVELGREEN SUPREME	70.0	30.0	50.0	50.0	66.7	33.3	71.7	28.3	50.0	50.0	33.3	66.7
MOUNTAIN VIEW 2	71.7	28.3	53.3	46.7	65.0	35.0	71.7	28.3	51.7	48.3	55.0	45.0
ELFKIN	73.3	26.7	56.7	43.3	71.7	28.3	76.7	23.3	41.7	58.3	48.3	51.7
MP111	76.7	23.3	60.0	40.0	75.0	25.0	81.7	18.3	45.0	55.0	48.3	51.7
PRIME	68.3	31.7	40.0	60.0	61.7	38.3	63.3	36.7	41.7	58.3	38.3	61.7
CHARGER	58.3	41.7	38.3	61.7	65.0	35.0	71.7	28.3	50.0	50.0	51.7	48.3
CITATION III + WINTERSTAR	78.3	21.7	61.7	38.3	73.3	26.7	70.0	30.0	51.7	48.3	45.0	55.0
FIRST CUT	61.7	38.3	60.0	40.0	75.0	25.0	68.3	31.7	53.3	46.7	55.0	45.0
LS-DE1	73.3	26.7	55.0	45.0	73.3	26.7	73.3	26.7	48.3	51.7	50.0	50.0
PARAGON	66.7	33.3	60.0	40.0	71.7	28.3	71.7	28.3	50.0	50.0	41.7	58.3
PICK HR A-97	71.7	28.3	50.0	50.0	71.7	28.3	68.3	31.7	43.3	56.7	48.3	51.7
TOP HAT	76.7	23.3	53.3	46.7	73.3	26.7	83.3	16.7	55.0	45.0	55.0	45.0
PST-3BK-99	80.0	20.0	60.0	40.0	73.3	26.7	71.7	28.3	51.7	48.3	61.7	38.3
SNOWBIRD	61.7	38.3	51.7	48.3	75.0	25.0	65.0	35.0	41.7	58.3	68.3	31.7
SABRE	83.3	16.7	56.7	43.3	73.3	26.7	80.0	20.0	51.7	48.3	61.7	38.3
ABT-99-3.268	66.7	33.3	45.0	55.0	70.0	30.0	63.3	36.7	56.7	43.3	40.0	60.0
PROAM	66.7	33.3	56.7	43.3	68.3	31.7	80.0	20.0	53.3	46.7	60.0	40.0
WINTERPLAY	80.0	20.0	65.0	35.0	78.3	21.7	85.0	15.0	65.0	35.0	71.7	28.3
BARIVIERA	66.7	33.3	61.7	38.3	66.7	33.3	73.3	26.7	63.3	36.7	63.3	36.7
LSD VALUE	39.7	39.7	36.8	36.8	40.0	40.0	26.1	26.1	41.5	41.5	23.3	23.3
C.V. (%)	19.4	41.0	23.7	27.2	13.9	32.2	14.7	33.6	27.8	23.5	22.9	21.0

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

TABLE 8B.  
(CONT')

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT GARLAND (DALLAS), TX (FIRE WHEEL GOLF PARK)  
1999-2000 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT COVER OF LIVING GRASSES IN SPRING/SUMMER TRANSITION PERIOD IN 2000											
	BERMUDA GRASS 3/13	OVERSEED GRASS 3/13	BERMUDA GRASS 4/7	OVERSEED GRASS 4/7	BERMUDA GRASS 5/1	OVERSEED GRASS 5/1	BERMUDA GRASS 5/15	OVERSEED GRASS 5/15	BERMUDA GRASS 6/5	OVERSEED GRASS 6/5	BERMUDA GRASS 6/19	OVERSEED GRASS 6/19
PROFESSIONAL'S SELECT	30.0	70.0	25.0	75.0	46.7	53.3	40.0	60.0	61.7	35.0	50.0	50.0
CHARGER II	36.7	63.3	25.0	73.3	40.0	60.0	53.3	40.0	60.0	40.0	70.0	30.0
TOURSTAR	23.3	76.7	25.0	73.3	40.0	60.0	48.3	55.0	58.3	41.7	74.7	25.0
MOUNTAIN VIEW 1	36.7	63.3	35.0	63.3	40.0	60.0	66.7	33.3	58.3	41.7	66.7	33.3
ESSENCE	36.7	63.3	33.3	65.0	40.0	60.0	60.0	40.0	61.7	38.3	65.0	35.0
FIESTA 3	30.0	70.0	25.0	75.0	50.0	50.0	46.7	53.3	66.3	33.3	74.7	8.3
BRIGHTSTAR II	35.0	65.0	33.3	65.0	40.0	60.0	41.7	58.3	66.7	33.3	53.3	46.7
FUTURA 2500	43.3	56.7	31.7	63.3	50.0	50.0	58.3	41.7	63.3	36.7	65.0	35.0
MP58	35.0	65.0	25.0	71.7	43.3	56.7	41.7	58.3	66.7	33.3	56.7	43.3
PIROUETTE	26.7	73.3	25.0	73.3	43.3	56.7	40.0	60.0	58.3	41.7	60.0	40.0
SEVILLE II	35.0	65.0	25.0	73.3	40.0	60.0	46.7	56.7	58.3	41.7	69.7	30.0
LEADERBOARD	31.7	68.3	25.0	75.0	46.7	53.3	55.0	45.0	71.7	28.3	61.7	38.3
MED-007	38.3	61.7	28.3	68.3	40.0	60.0	41.7	58.3	56.7	43.3	61.7	38.3
MOUNTAIN VIEW 3	50.0	50.0	26.7	73.3	40.0	60.0	58.3	41.7	61.7	38.3	66.7	33.3
PHANTOM	36.7	63.3	30.0	68.3	50.0	50.0	50.0	53.3	65.0	35.0	65.0	35.0
BARLENNIUM	45.0	55.0	25.0	71.7	40.0	60.0	45.0	55.0	58.3	41.7	60.0	40.0
CEBECO BLEND 1	31.7	68.3	25.0	73.3	43.3	56.7	55.0	45.0	58.3	41.7	56.7	43.3
CITATION III	33.3	66.7	28.3	68.3	33.3	65.0	45.0	55.0	61.7	38.3	53.3	46.7
MARVELGREEN + LASER	33.3	66.7	28.3	70.0	50.0	46.7	50.0	50.0	71.7	28.3	56.7	43.3
TRANSIST	28.3	71.7	28.3	68.3	50.0	50.0	55.0	45.0	61.7	41.7	80.0	20.0
ALLSPORT	40.0	60.0	25.0	71.7	50.0	50.0	51.7	48.3	58.3	41.7	68.3	31.7
BRIGHTSTAR II + WINTERPLAY	33.3	66.7	33.3	63.3	40.0	56.7	41.7	58.3	50.0	50.0	53.3	46.7
CAPRI	23.3	76.7	25.0	75.0	46.7	53.3	55.0	45.0	63.3	36.7	63.3	36.7
MARVELGREEN SUPREME	28.3	71.7	28.3	68.3	40.0	60.0	50.0	50.0	56.7	43.3	58.3	38.3
MOUNTAIN VIEW 2	41.7	58.3	30.0	68.3	40.0	60.0	68.3	31.7	61.7	35.0	75.0	25.0
ELFKIN	41.7	58.3	16.7	73.3	40.0	60.0	45.0	55.0	50.0	50.0	60.0	40.0
MP111	40.0	60.0	33.3	66.7	53.3	46.7	63.3	36.7	66.7	33.3	75.0	25.0
PRIME	31.7	68.3	25.0	71.7	43.3	56.7	53.3	46.7	55.0	45.0	68.3	31.7
CHARGER	38.3	61.7	28.3	68.3	40.0	53.3	53.3	46.7	58.3	41.7	58.3	41.7
CITATION III + WINTERSTAR	45.0	55.0	30.0	66.7	50.0	46.7	55.0	45.0	73.3	26.7	66.7	33.3
FIRST CUT	35.0	65.0	25.0	70.0	53.3	43.3	28.3	71.7	60.0	40.0	50.0	50.0
LS-DE1	35.0	65.0	30.0	68.3	46.7	53.3	50.0	50.0	58.3	41.7	65.0	35.0
PARAGON	38.3	61.7	25.0	70.0	46.7	50.0	41.7	58.3	65.0	35.0	53.3	46.7
PICK HR A-97	30.0	70.0	25.0	70.0	43.3	56.7	60.0	40.0	66.7	33.3	61.7	38.3
TOP HAT	38.3	61.7	28.3	70.0	50.0	50.0	41.7	58.3	68.3	31.7	63.3	36.7
PST-3BK-99	43.3	56.7	33.3	65.0	46.7	53.3	53.3	46.7	53.3	46.7	56.7	43.3
SNOWBIRD	53.3	46.7	36.7	58.3	46.7	53.3	50.0	50.0	70.0	30.0	55.0	45.0
SABRE	46.7	53.3	36.7	60.0	56.7	36.7	60.0	40.0	61.7	38.3	65.0	35.0
ABT-99-3.268	36.7	63.3	30.0	63.3	46.7	50.0	50.0	50.0	86.0	13.3	82.7	16.7
PROAM	51.7	48.3	38.3	48.3	56.7	33.3	50.0	50.0	53.3	46.7	50.0	50.0
WINTERPLAY	63.3	36.7	41.7	56.7	46.7	46.7	41.7	55.0	53.3	46.7	50.0	50.0
BARIVIERA	63.3	36.7	33.3	60.0	53.3	40.0	66.7	33.3	66.7	33.3	50.0	50.0
LSD VALUE	22.9	22.9	23.2	21.7	15.8	16.4	41.3	36.5	45.2	43.9	34.2	27.1
C.V. (%)	28.8	17.6	26.2	12.1	15.4	15.1	26.4	26.1	19.7	32.1	20.1	32.7

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

TABLE 8B.  
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT GARLAND (DALLAS), TX (FIRE WHEEL GOLF PARK)  
1999-2000 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	GENETIC	WINTER	UNIFORMITY		FALL QUALITY			WINTER QUALITY		SPRING/SUMMER QUALITY IN 2000							QUALITY MEAN
	COLOR 4/7/00	COLOR 1/7/00	IN 1999 10/11	10/18	IN 1999 12/10	12/17	12/21	IN 2000 1/7	2/9	3/13	4/7	5/1	5/15	6/5	6/19	7/3	
PROFESSIONAL'S SELECT	7.0	5.3	5.0	5.0	5.0	7.0	6.7	5.7	6.3	6.7	7.0	6.0	6.7	6.3	7.3	6.0	6.3
CHARGER II	7.0	5.7	4.7	4.7	4.7	6.3	6.7	6.0	6.3	6.3	7.3	6.3	7.3	6.3	6.0	4.7	6.1
TOURSTAR	7.0	6.7	5.7	5.3	4.7	6.0	6.7	6.3	6.7	7.3	7.3	6.3	6.0	6.0	5.7	5.3	6.1
MOUNTAIN VIEW 1	6.7	5.0	5.3	5.7	5.0	6.7	6.3	5.3	6.3	6.3	6.3	6.0	5.3	5.7	6.7	5.3	6.0
ESSENCE	5.7	5.0	4.7	5.7	4.3	6.3	6.3	5.3	7.3	6.0	6.7	6.3	7.0	5.0	5.7	5.7	5.9
FIESTA 3	7.0	6.0	4.7	4.7	4.7	6.7	6.0	5.3	6.3	6.7	7.3	5.7	5.0	5.7	5.7	5.7	5.9
BRIGHTSTAR II	7.7	6.3	6.0	5.7	4.3	6.3	6.3	6.3	5.0	4.0	6.7	6.7	6.3	6.0	6.3	5.0	5.7
FUTURA 2500	5.3	5.0	5.0	5.3	4.7	6.7	5.7	5.3	6.0	6.0	5.7	6.7	6.0	6.3	5.7	4.7	5.7
MP58	7.0	6.0	3.3	4.0	4.3	5.7	6.0	5.3	7.0	6.0	7.0	5.7	5.7	6.0	7.0	4.7	5.7
PIROUETTE	7.0	5.7	4.3	4.3	4.0	5.7	5.3	5.3	6.0	6.7	7.0	6.7	7.0	7.0	6.3	5.0	5.7
SEVILLE II	7.0	6.3	5.3	5.0	4.7	6.0	5.3	6.7	6.3	6.3	6.0	5.7	6.3	5.7	6.0	5.0	5.7
LEADERBOARD	7.3	6.3	4.0	5.0	4.3	5.0	5.0	6.0	6.3	6.3	7.0	6.0	7.3	6.3	6.3	5.7	5.6
MED-007	6.7	5.3	5.3	4.0	4.3	5.7	5.3	6.3	6.3	5.3	6.3	6.7	6.7	6.3	6.3	5.0	5.6
MOUNTAIN VIEW 3	6.3	6.0	4.3	5.0	4.3	6.3	5.3	5.7	6.7	5.0	7.0	5.3	6.3	6.0	6.3	5.3	5.6
PHANTOM	7.3	6.7	5.3	4.7	4.0	5.3	5.7	6.0	6.0	5.7	6.3	6.3	7.3	6.7	6.3	5.7	5.6
BARLENNIUM	7.0	5.7	5.0	5.0	4.3	6.0	5.0	6.3	6.3	5.3	6.0	5.3	6.0	6.0	5.7	5.7	5.5
CEBECO BLEND 1	6.3	5.0	4.0	4.7	4.0	5.3	5.7	5.3	6.3	6.7	6.3	5.7	6.3	6.0	6.0	5.3	5.5
CITATION III	7.0	5.7	4.3	5.3	3.3	5.7	6.0	5.0	5.7	6.7	7.0	6.7	5.3	6.3	7.0	5.0	5.5
MARVELGREEN + LASER	6.3	5.3	4.3	5.0	4.0	5.0	6.0	5.7	6.7	6.7	6.7	5.3	5.7	6.3	6.7	4.7	5.5
TRANSIST	5.7	4.7	5.7	5.7	4.0	5.7	6.7	5.0	5.7	7.3	6.0	4.7	6.0	5.7	4.7	4.3	5.5
ALLSPORT	6.0	5.7	4.0	4.3	4.7	5.7	4.0	5.3	6.3	5.7	6.3	5.7	6.0	7.3	6.3	5.0	5.4
BRIGHTSTAR II + WINTERPLAY	6.7	6.3	4.7	4.7	4.0	5.0	5.7	6.0	6.0	5.7	6.3	5.3	6.3	6.0	7.7	4.7	5.4
CAPRI	5.7	4.0	5.0	5.3	3.7	6.0	5.3	4.7	6.0	7.0	6.0	6.7	5.3	6.0	6.0	5.0	5.4
MARVELGREEN SUPREME	6.7	7.0	4.3	5.0	3.7	5.0	5.7	5.7	6.0	6.7	7.0	5.7	5.7	7.0	5.7	5.0	5.4
MOUNTAIN VIEW 2	6.7	5.7	4.3	5.0	4.0	5.3	5.3	4.7	5.7	5.7	6.7	5.7	6.7	6.3	5.3	6.0	5.4
ELFKIN	6.3	5.3	4.3	5.0	2.7	5.7	5.0	5.0	6.3	5.3	6.3	6.3	6.7	6.3	6.7	6.0	5.3
MP111	7.0	7.3	4.3	4.7	4.0	4.7	6.0	5.3	6.7	6.0	6.3	5.3	5.3	6.0	5.3	5.0	5.3
PRIME	6.7	6.3	5.3	5.3	3.3	4.7	5.3	6.3	6.0	5.7	6.3	6.3	6.3	6.3	6.3	5.0	5.3
CHARGER	5.7	4.7	5.3	6.0	3.7	5.7	4.7	5.0	6.0	5.3	5.3	6.0	5.7	6.0	7.7	5.0	5.2
CITATION III + WINTERSTAR	6.3	5.3	3.7	4.7	4.3	5.0	5.3	5.0	6.7	5.0	6.0	4.7	6.0	6.0	6.3	4.7	5.2
FIRST CUT	6.7	5.7	5.3	4.3	2.7	5.0	5.0	4.7	6.3	6.0	6.0	5.7	6.0	6.7	7.7	4.7	5.1
LS-DE1	7.0	6.0	5.0	4.3	3.3	4.7	4.3	6.0	6.0	6.0	6.0	5.0	6.3	6.3	6.0	6.3	5.1
PARAGON	7.7	6.7	4.7	4.7	3.3	4.7	5.0	6.3	6.7	5.7	6.0	4.7	5.3	5.3	7.3	4.7	5.1
PICK HR A-97	5.3	4.7	5.0	5.0	3.7	5.3	5.7	5.3	4.7	6.7	6.0	5.7	4.7	4.7	5.0	4.0	5.0
TOP HAT	6.7	5.7	3.7	4.7	2.7	3.7	4.7	5.3	6.0	6.0	6.3	5.7	7.0	6.0	6.3	5.7	4.9
PST-3BK-99	6.7	4.7	3.7	4.3	3.0	3.3	5.3	4.0	6.7	5.7	6.3	5.0	5.7	6.0	6.7	5.3	4.8
SNOWBIRD	4.3	3.3	5.7	5.0	2.7	5.0	5.3	3.7	5.7	4.0	4.7	5.3	5.0	6.7	6.7	3.7	4.7
SABRE	4.0	3.0	4.0	4.7	2.0	4.0	4.3	3.0	6.7	4.7	4.0	4.3	3.3	6.0	6.3	5.0	4.1
ABT-99-3.268	3.0	4.0	5.3	5.0	1.7	5.0	3.7	4.7	5.3	5.0	3.0	3.7	5.0	4.7	5.0	5.3	4.0
PROAM	4.3	3.3	4.7	4.7	2.7	4.3	3.3	3.3	5.0	4.3	4.0	3.3	5.0	5.3	7.0	4.0	4.0
WINTERPLAY	4.7	3.7	3.3	4.0	1.7	3.0	3.3	3.3	6.0	3.3	4.3	4.0	4.7	6.7	7.7	4.0	3.8
BARIVIERA	4.3	2.7	4.3	4.3	1.7	3.7	3.3	3.0	5.0	3.3	4.3	3.7	4.0	5.0	6.3	4.7	3.6
LSD VALUE	1.1	1.5	2.3	1.9	3.0	4.8	2.2	1.4	5.0	2.3	1.6	2.0	4.3	5.1	4.2	3.8	1.3
C.V. (%)	10.9	16.7	19.9	14.5	33.6	28.2	20.2	16.1	18.8	19.7	15.2	17.9	23.8	19.5	19.6	20.6	18.8

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

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

TABLE 9A. 1999-2000 MANAGEMENT - ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT THE WOODLANDS, TX (THE WOODLANDS GOLF COURSE)

SEEDBED PREPARATION		FERTILIZATION	
		Date(s)	Product
			Rate (lbs./M)
MOWING		monthly year round	21-0-0
			up 2 lbs. N
Initial height	7/16"		
mowing height during test	7/16"	FUNGICIDES	
Frequency	3 times per week	Date(s)	Product
Type of mower	Triplex		Rate (oz./M)
		Jan. through May	Primo
			9 fl. Oz./Acre
CULTIVATION			
Aerification - dates	March, 2000	HERBICIDES	
Aerification - type	Solid	Date(s)	Product
Verticutting		None	Rate (oz./M)
Dates of topdressing			
Other cultural practices		INSECTICIDES	
		Date(s)	Product
		None	Rate (oz./M)
MAINTENANCE PRACTICES TO ENHANCE SPRING			
Lower cutting height, fertilize heavy, cut down on irrigation back to 0.6"		OTHER PRODUCTS	
		Date(s)	Product
		None	Rate (oz./M)
OTHER INFORMATION		NOTES/COMMENTS	
Course closed for overseeding	Yes, for 1 week	The base bermudagrass never went dormant, although it did discolor somewhat. Winter color ratings are identical to genetic color ratings since the location never got cold enough to affect color. The percentage of living bermudagrass ratings were figured by subtracting the percent overseeding ratings from 100 since there was never any dead, damaged, or completely dormant bermudagrass. The columns for percent dormant bermudagrass coverage in the "winter" portion of the data form were extrapolated in the same manner, even though the "dormant" label did not	
Landing area	short of normal landing		
Divoting problem	only a minor problem		
Cart allowed on Test area	Yes		
Traffic patterns	not evident		

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TABLE 9B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT WOODLAND (HOUSTON), TX (THE WOODLAND GOLF COURSE) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	FALL PERCENT COVER		WINTER PERCENT COVER IN 2000				PERCENT COVER OF LIVING GRASSES IN SPRING/SUMMER (2000)							
	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED
	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS
	12/21/99	12/21/99	1/19	1/19	2/22	2/22	3/29	3/29	4/20	4/20	5/18	5/18	5/31	5/31
CHARGER II	33.3	66.7	33.3	66.7	3.7	96.3	23.3	76.7	38.3	61.7	55.0	45.0	97.7	1.7
FIESTA 3	26.7	73.3	36.7	63.3	5.0	95.0	18.3	81.7	38.3	61.7	48.3	51.7	94.3	5.0
LEADERBOARD	35.0	65.0	33.3	66.7	2.3	97.7	20.0	80.0	41.7	58.3	58.3	41.7	97.7	1.7
PARAGON	26.7	73.3	31.7	68.3	3.7	96.3	10.0	90.0	41.7	58.3	46.7	53.3	94.7	5.0
PROFESSIONAL'S SELECT	30.0	70.0	38.3	61.7	6.7	93.3	20.0	80.0	48.3	51.7	51.7	48.3	94.7	5.0
SEVILLE II	23.3	76.7	35.0	65.0	5.0	95.0	21.7	78.3	40.0	60.0	60.0	40.0	99.0	0.0
BARLENNIUM	40.0	60.0	35.0	65.0	2.3	97.7	13.3	86.7	45.0	55.0	51.7	48.3	94.7	5.0
BRIGHTSTAR II	35.0	65.0	36.7	63.3	7.0	93.0	20.0	80.0	51.7	48.3	56.7	43.3	99.0	0.0
ELFKIN	31.7	68.3	31.7	68.3	7.0	93.0	26.7	73.3	46.7	53.3	53.3	46.7	96.0	3.3
MARVELGREEN SUPREME	25.0	75.0	35.0	65.0	2.3	97.7	25.0	75.0	43.3	56.7	55.0	45.0	97.7	1.7
PIROUETTE	28.3	71.7	40.0	60.0	5.0	95.0	15.0	85.0	38.3	61.7	51.7	48.3	93.3	6.7
FIRST CUT	23.3	76.7	28.3	71.7	11.7	88.3	28.3	71.7	38.3	61.7	63.3	36.7	91.7	8.3
LS-DE1	30.0	70.0	33.3	66.7	5.3	94.7	23.3	76.7	50.0	50.0	55.0	45.0	94.7	5.0
MOUNTAIN VIEW 2	28.3	71.7	38.3	61.7	5.3	94.7	26.7	73.3	51.7	48.3	63.3	36.7	96.0	3.3
MP58	31.7	68.3	33.3	66.7	10.0	90.0	31.7	68.3	48.3	51.7	68.3	31.7	99.0	0.0
MED-007	36.7	63.3	43.3	56.7	6.7	93.3	26.7	73.3	45.0	55.0	51.7	48.3	96.3	3.3
PRIME	36.7	63.3	33.3	66.7	6.7	93.3	23.3	76.7	40.0	60.0	55.0	45.0	94.7	5.0
TOURSTAR	36.7	63.3	40.0	60.0	7.0	93.0	23.3	76.7	51.7	48.3	58.3	41.7	96.0	3.3
ALLSPORT	35.0	65.0	33.3	66.7	6.7	93.3	28.3	71.7	56.7	43.3	63.3	36.7	96.0	3.3
CITATION III + WINTERSTAR	25.0	75.0	30.0	70.0	5.0	95.0	28.3	71.7	33.3	66.7	43.3	56.7	76.7	23.3
ESSENCE	35.0	65.0	36.7	63.3	5.0	95.0	30.0	70.0	46.7	53.3	48.3	51.7	91.3	8.3
CEBECO BLEND 1	35.0	65.0	43.3	56.7	5.0	95.0	28.3	71.7	43.3	56.7	56.7	43.3	93.0	6.7
CITATION III	35.0	65.0	38.3	61.7	6.7	93.3	31.7	68.3	45.0	55.0	58.3	41.7	99.0	0.0
MARVELGREEN + LASER	23.3	76.7	30.0	70.0	8.3	91.7	30.0	70.0	40.0	60.0	41.7	58.3	75.0	25.0
MOUNTAIN VIEW 3	30.0	70.0	36.7	63.3	7.0	93.0	36.7	63.3	55.0	45.0	56.7	43.3	96.0	3.3
MOUNTAIN VIEW 1	28.3	71.7	36.7	63.3	8.3	91.7	33.3	66.7	51.7	48.3	63.3	36.7	96.0	3.3
TOP HAT	41.7	58.3	40.0	60.0	6.7	93.3	35.0	65.0	36.7	63.3	55.0	45.0	89.7	10.0
BRIGHTSTAR II + WINTERPLAY	26.7	73.3	33.3	66.7	12.0	88.0	33.3	66.7	33.3	66.7	48.3	51.7	78.3	21.7
CHARGER	40.0	60.0	43.3	56.7	6.7	93.3	35.0	65.0	43.3	56.7	66.7	33.3	93.0	6.7
FUTURA 2500	36.7	63.3	43.3	56.7	8.3	91.7	38.3	61.7	48.3	51.7	60.0	40.0	96.0	3.3
PHANTOM	33.3	66.7	43.3	56.7	11.7	88.3	30.0	70.0	55.0	45.0	65.0	35.0	93.0	6.7
PST-3BK-99	36.7	63.3	43.3	56.7	11.7	88.3	53.3	46.7	63.3	36.7	75.0	25.0	99.0	0.0
MP111	36.7	63.3	40.0	60.0	8.3	91.7	33.3	66.7	53.3	46.7	61.7	38.3	96.0	3.3
WINTERPLAY	16.7	83.3	30.0	70.0	7.0	93.0	35.0	65.0	30.0	70.0	36.7	63.3	80.0	20.0
BARIVIERA	28.3	71.7	26.7	73.3	7.0	93.0	43.3	56.7	36.7	63.3	50.0	50.0	66.7	33.3
CAPRI	45.0	55.0	51.7	48.3	10.0	90.0	38.3	61.7	50.0	50.0	60.0	40.0	91.3	8.3
PICK HR A-97	45.0	55.0	36.7	63.3	8.3	91.7	36.7	63.3	50.0	50.0	68.3	31.7	99.0	0.0
PROAM	26.7	73.3	28.3	71.7	9.0	91.0	33.3	66.7	36.7	63.3	40.0	60.0	63.3	36.7
SABRE	25.0	75.0	30.0	70.0	10.0	90.0	38.3	61.7	36.7	63.3	46.7	53.3	70.0	30.0
SNOWBIRD	36.7	63.3	28.3	71.7	11.7	88.3	33.3	66.7	35.0	65.0	53.3	46.7	80.0	20.0
TRANSIST	46.7	53.3	53.3	46.7	11.7	88.3	43.3	56.7	58.3	41.7	80.0	20.0	99.0	0.0
ABT-99-3.268	48.3	51.7	53.3	46.7	20.0	80.0	51.7	48.3	58.3	41.7	93.3	6.7	99.0	0.0
LSD VALUE	43.8	43.8	23.5	23.5	15.2	15.2	12.4	12.4	22.5	22.5	15.1	15.1	8.6	9.0
C.V. (%)	37.4	18.2	24.9	14.5	68.4	5.5	25.3	10.8	22.4	18.4	15.9	21.1	6.2	73.2

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

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

TABLE 9B.  
(CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
AT WOODLAND (HOUSTON), TX (THE WOODLAND GOLF COURSE)  
1999-2000 DATA  
TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT									
	EARLY ESTABLISHED 11/17/99	GENETIC COLOR 3/29/00	FALL QUALITY 12/21/99	WINTER QUALITY IN 2000		SPRING/SUMMER QUALITY IN 2000				QUALITY MEAN
				1/19	2/22	3/29	4/20	5/18	5/31	
CHARGER II	30.0	7.3	6.0	5.3	8.0	6.7	7.7	7.7	7.3	7.0
FIESTA 3	6.7	8.0	7.0	5.3	7.7	7.0	7.3	7.0	7.7	7.0
LEADERBOARD	20.0	8.0	6.3	5.7	8.0	6.7	7.7	7.3	7.7	7.0
PARAGON	23.3	8.0	6.3	5.7	7.7	7.3	7.7	7.3	7.0	7.0
PROFESSIONAL'S SELECT	16.7	7.7	6.0	5.3	7.7	6.7	7.7	7.7	7.7	7.0
SEVILLE II	11.7	8.0	6.7	5.7	7.7	6.0	7.7	7.3	8.0	7.0
BARLENNIUM	5.0	8.0	6.7	5.3	7.3	7.0	7.0	7.7	7.3	6.9
BRIGHTSTAR II	26.7	7.7	6.0	5.3	7.3	6.0	7.3	7.3	8.0	6.8
ELFKIN	25.0	7.7	6.0	6.0	7.0	6.0	7.7	7.0	7.7	6.8
MARVELGREEN SUPREME	16.7	7.7	6.3	5.3	7.7	6.0	7.7	7.3	7.3	6.8
PIROUETTE	5.0	8.0	6.0	5.0	7.0	7.0	7.3	7.7	7.7	6.8
FIRST CUT	5.0	6.7	7.0	6.7	6.7	6.0	6.3	7.0	7.0	6.7
LS-DE1	8.3	8.0	6.3	5.7	7.3	5.7	7.0	7.0	7.7	6.7
MOUNTAIN VIEW 2	6.7	7.7	6.3	5.0	7.3	6.0	7.3	7.7	7.3	6.7
MP58	0.0	8.0	6.0	5.7	7.0	5.7	7.3	7.3	8.0	6.7
MED-007	8.3	7.3	6.0	4.7	7.7	6.0	7.0	7.7	7.3	6.6
PRIME	1.7	8.0	5.7	5.7	7.3	6.0	7.3	7.0	7.3	6.6
TOURSTAR	16.7	7.3	5.3	5.0	7.3	6.3	7.3	7.3	7.3	6.6
ALLSPORT	5.0	8.0	6.0	5.3	7.0	5.3	7.3	7.3	7.3	6.5
CITATION III + WINTERSTAR	11.7	5.7	5.3	6.7	7.3	6.0	6.3	7.0	6.7	6.5
ESSENCE	8.3	6.0	5.7	5.3	7.0	5.7	7.3	7.0	7.7	6.5
CEBECO BLEND 1	10.0	6.7	5.3	5.0	7.0	5.7	7.0	7.0	7.7	6.4
CITATION III	12.3	8.0	5.3	5.3	7.0	5.0	7.0	7.3	7.7	6.4
MARVELGREEN + LASER	6.7	6.7	6.0	6.0	7.0	5.7	6.7	7.0	6.3	6.4
MOUNTAIN VIEW 3	10.0	7.7	6.3	5.3	7.0	5.0	7.0	7.0	7.3	6.4
MOUNTAIN VIEW 1	6.7	7.3	6.0	5.3	6.7	5.3	7.0	7.0	7.0	6.3
TOP HAT	5.0	6.7	5.3	4.7	7.0	5.3	7.3	7.3	7.3	6.3
BRIGHTSTAR II + WINTERPLAY	3.3	6.0	5.3	5.3	7.3	5.3	6.3	6.7	7.0	6.2
CHARGER	15.0	6.3	5.0	4.3	7.0	5.3	7.0	7.0	7.7	6.2
FUTURA 2500	6.7	6.7	5.3	4.7	7.0	5.3	7.0	6.7	7.3	6.2
PHANTOM	0.0	7.7	5.3	4.7	6.7	5.3	7.0	7.0	7.3	6.2
EST-3BK-99	3.3	7.7	6.0	4.7	6.7	4.0	6.7	7.0	8.0	6.1
MP111	1.7	7.7	5.3	4.3	6.7	4.7	6.7	7.0	7.3	6.0
WINTERPLAY	0.0	5.7	5.0	6.7	7.0	4.7	6.7	6.0	6.0	6.0
BARIVIERA	0.0	5.0	4.7	6.3	7.3	4.3	5.7	6.7	6.0	5.9
CAPRI	1.7	6.0	4.0	4.0	7.0	5.0	6.7	7.0	7.3	5.9
PICK HR A-97	2.3	5.3	5.0	5.0	7.3	5.0	5.7	5.3	7.3	5.8
FROAM	0.0	4.7	4.3	6.3	7.0	4.7	5.7	6.3	6.3	5.8
SABRE	0.0	4.7	4.3	5.7	6.3	4.3	5.0	6.3	6.0	5.4
SNOWBIRD	0.0	5.3	3.3	5.3	6.0	5.0	6.3	5.7	6.0	5.4
TRANSIST	33.3	5.0	3.7	4.0	5.7	4.0	5.7	6.0	8.0	5.3
ABT-99-3.268	13.3	3.3	3.3	4.0	5.3	3.0	4.0	5.3	7.3	4.6
LSD VALUE	33.9	0.7	1.4	2.2	1.4	1.4	0.8	0.9	1.2	0.8
C.V. (%)	136.5	6.5	14.9	17.4	9.5	14.6	7.5	7.9	8.8	7.2

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

TABLE 10A.1999-00 MANAGEMENT- ON-SITE OVERSEEDING OF BERMUDAGRASS TEST AT CHARLOTTESVILLE, VA(GLENMORE COUNTRY CLUB)

SEEDBED PREPARATION

Dragged area to stand up grass

MOWING

Initial height 5/8"  
 mowing height during test 9/16"  
 Frequency 3 times (May-Sept.), 2 times (Apr. Oct. Nov.) per week  
 Type of mower Toro 6500-P Penta plex

FERTILIZATION

Date(s) Product Rate (lbs./M)

Fertigation is primary fertilization method used, applying 0.1 lb N at Application generally  
 5/15 - 6/30 16-4-8 1.6 lbs. N and 0.2 lb. S  
 7/1 - 8/10 9-9-9 1 lb. N and 0.2 lb. S  
 16-Jul CaNo<sub>3</sub> 0.5 lb. CaNo<sub>3</sub>  
 14-Aug CaNo<sub>3</sub> 0.5 lb. CaNo<sub>3</sub>  
 8/15 - 10/20 0.5 lb. N, 1 lb. P, 1 lb. K

CULTIVATION

Aerification - dates 1-Aug-00  
 Aerification - type Toro 4000 Aerified, 3/4" hollow tine, drag plugs in.  
 Verticutting  
 Dates of topdressing  
 Other cultural practices

FUNGICIDES

Date(s) Product Rate (oz./M)  
 29-Sep Eagle (for Spring Dead Spot) 1.2  
 29-Sep Banner 2

HERBICIDES

MAINTENANCE PRACTICES TO ENHANCE SPRING TRANSITION

Date(s) Product Rate (oz./M)

OTHER INFORMATION

12-Apr Team Pro (5-5-20) 200 lbs./A.

Course closed for overseeding No

Landing area Yes, none more than normal

Divoting problem No, very little divot problem

Cart allowed on Test area Carts were allowed on area most of time

Traffic patterns Test areas are not high traffic areas.

INSECTICIDES

Date(s) Product Rate (oz./M)  
 5-Jun Merit 0.156

NOTES/COMMENTS

A certain percentage of Ryegrass carries over from year to year, depending on the summer weather.

OTHER PRODUCTS

Date(s) Product Rate (oz./M)  
 12-Jun Primo 0.25  
 7/6 and 8/1 Primo 0.3  
 22-Aug Primo 0.38

Product and company names mentioned herein may be trademarks and/or registered trademarks of their respective owners

TABLE 10B.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NTEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT CHARLOTTESVILLE, VA (GLENMORE C.C.) 1/  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	FALL %COVER		WINTER %COVER		SPRING/SUMMER PERCENT COVER OF LIVING GRASSES IN 2000								
	OVERSEED		OF OVERSEEDING		OVERSEED	OVERSEED	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED	BERMUDA	OVERSEED
	GRASS		GRASS		GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS	GRASS
	12/8/99	12/22/99	1/14/00		3/30	4/14	4/26	5/16	5/16	6/3	6/3	6/27	6/27
SABRE	80.0	81.7	93.3		97.0	98.0	99.0	43.3	56.7	46.7	53.3	60.0	40.0
PROAM	80.0	80.0	87.5		92.5	97.5	99.0	40.0	60.0	30.0	70.0	60.0	40.0
CITATION III + WINTERSTAR	53.3	63.3	76.7		85.0	96.3	99.0	53.3	46.7	53.3	46.7	70.0	30.0
MARVELGREEN + LASER	68.3	73.3	86.7		88.3	96.3	99.0	40.0	60.0	50.0	50.0	56.7	43.3
BRIGHTSTAR II + WINTERPLAY	60.0	70.0	82.0		86.7	96.0	99.0	53.3	46.7	38.3	61.7	63.3	36.7
ESSENCE	50.0	60.0	66.7		88.3	94.7	99.0	46.7	53.3	66.7	33.3	70.0	30.0
FIRST CUT	58.3	70.0	83.3		91.7	96.3	99.0	40.0	60.0	56.7	43.3	60.0	40.0
WINTERPLAY	80.0	78.3	88.3		90.0	96.3	98.7	36.7	63.3	31.7	68.3	60.0	40.0
ALLSPORT	60.0	63.3	76.7		86.7	95.0	99.0	46.7	53.3	60.0	40.0	73.3	26.7
BARIVIERA	75.0	80.0	80.0		88.3	94.7	99.0	31.7	68.3	35.0	65.0	56.7	43.3
BARLENNIUM	50.0	63.3	73.3		88.3	96.0	99.0	46.7	53.3	60.0	40.0	66.7	33.3
LS-DE1	62.5	60.0	77.5		85.0	95.0	98.5	55.0	45.0	60.0	40.0	75.0	25.0
MOUNTAIN VIEW 2	60.0	63.3	75.0		88.3	95.7	99.0	43.3	56.7	63.3	36.7	66.7	33.3
SNOWBIRD	70.0	80.0	91.7		92.7	96.0	98.7	33.3	66.7	40.0	60.0	60.0	40.0
TOURSTAR	50.0	60.0	70.0		82.5	95.0	99.0	35.0	65.0	65.0	35.0	75.0	25.0
CAPRI	53.3	65.0	73.3		93.3	96.3	99.0	65.0	35.0	71.7	28.3	76.7	23.3
CEBECO BLEND 1	63.3	66.7	76.7		90.0	95.0	99.0	41.7	58.3	70.0	30.0	70.0	30.0
CHARGER	60.0	63.3	76.7		86.7	95.3	98.7	40.0	60.0	53.3	46.7	73.3	26.7
CHARGER II	56.7	66.7	73.3		90.0	95.0	99.0	53.3	46.7	63.3	36.7	70.0	30.0
LEADERBOARD	50.0	65.0	67.5		82.5	93.5	98.5	45.0	55.0	65.0	35.0	70.0	30.0
MARVELGREEN SUPREME	65.0	66.7	78.3		88.3	95.0	98.7	50.0	50.0	63.3	36.7	63.3	36.7
MED-007	53.3	63.3	71.7		88.3	94.7	99.0	43.3	56.7	63.3	30.7	73.3	26.7
MOUNTAIN VIEW 1	56.7	63.3	71.7		88.3	94.3	98.3	43.3	56.7	63.3	36.7	66.7	33.3
MOUNTAIN VIEW 3	55.0	63.3	73.3		85.0	95.0	98.3	56.7	43.3	63.3	36.7	66.7	33.3
MP111	45.0	55.0	67.5		82.5	93.5	99.0	50.0	50.0	65.0	35.0	65.0	35.0
PICK HR A-97	50.0	56.7	70.0		86.7	94.7	98.7	60.0	40.0	76.7	23.3	83.3	16.7
PIROUETTE	53.3	66.7	76.7		91.7	96.0	98.7	53.3	46.7	60.0	40.0	70.0	30.0
PRIME	56.7	53.3	73.0		85.0	95.0	98.3	53.3	46.7	66.7	33.3	73.3	26.7
PROFESSIONAL'S SELECT	56.7	66.7	70.0		83.3	95.0	99.0	46.7	53.3	60.0	40.0	73.3	26.7
PST-3BK-99	55.0	60.0	78.3		85.0	94.3	99.0	56.7	43.3	66.7	33.3	80.0	20.0
TOP HAT	53.3	60.0	73.3		86.7	95.0	98.7	43.3	56.7	63.3	36.7	70.0	30.0
ELFKIN	51.7	60.0	68.3		83.3	92.7	98.3	46.7	53.3	66.7	33.3	63.3	36.7
FUTURA 2500	46.7	60.0	66.7		83.3	94.0	98.7	56.7	43.3	66.7	33.3	73.3	26.7
MP58	46.7	56.7	63.3		80.0	93.3	98.3	53.3	46.7	56.7	43.3	73.3	26.7
PHANTOM	51.7	60.0	70.0		85.0	94.3	98.7	46.7	53.3	63.3	36.7	73.3	26.7
SEVILLE II	53.3	56.7	65.0		85.0	94.0	98.0	55.0	45.0	63.3	36.7	66.7	33.3
FIESTA 3	43.3	56.7	68.3		86.7	93.7	98.7	58.3	45.0	60.0	40.0	70.0	30.0
PARAGON	56.7	63.3	76.7		88.3	94.3	98.3	56.7	43.3	60.0	40.0	76.7	23.3
TRANSIST	47.5	55.0	67.5		82.5	94.0	99.0	65.0	35.0	77.5	22.5	80.0	20.0
BRIGHTSTAR II	50.0	63.3	63.3		86.7	94.7	97.3	51.7	48.3	63.3	36.7	66.7	33.3
CITATION III	53.3	60.0	70.0		85.0	94.3	98.3	58.3	41.7	63.3	36.7	73.3	26.7
ABT-99-3.268	60.0	63.3	75.0		91.7	95.0	98.7	73.3	26.7	85.0	15.0	83.3	16.7
LSD VALUE	17.0	9.6	12.6		6.1	3.3	1.2	19.8	19.5	14.4	15.6	15.4	15.4
C.V. (%)	15.8	8.8	9.3		3.8	1.5	0.5	20.0	19.2	14.4	23.0	10.9	24.6

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

TABLE 10B. (CONT'D)

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF OVERSEEDING GRASSES IN THE  
 1999 USGA/GCSAA/NIEP ON-SITE OVERSEEDING OF BERMUDAGRASS FAIRWAY TEST  
 AT CHARLOTTESVILLE, VA (GLENMORE C.C.)  
 1999-2000 DATA  
 TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST

NAME	PERCENT	GENETIC COLOR	WINTER COLOR	FALL QUALITY	WINTER QUALITY		SPRING/SUMMER QUALITY IN 2000						QUALITY MEAN
	EARLY ESTABLISHED				12/22/99	1/14/00	3/30	4/14	4/26	5/11	6/3	3/27	
SABRE	61.7	6.0	3.7	3.7	4.0	4.0	3.7	5.7	6.7	6.7	7.0	5.7	5.2
PROAM	55.0	5.5	4.5	4.0	4.0	4.0	3.5	4.5	6.0	6.5	7.0	6.0	5.1
CITATION III + WINTERSTAR	28.3	6.3	6.3	3.0	3.0	3.3	3.0	4.7	6.7	7.3	7.0	6.7	5.0
MARVELGREEN + LASER	35.0	5.7	5.0	3.7	3.3	3.7	3.0	4.3	6.0	7.0	6.7	6.0	4.9
BRIGHTSTAR II + WINTERPLAY	33.3	6.3	6.0	3.0	3.0	3.3	3.0	4.3	6.3	7.3	7.0	6.0	4.8
ESSENCE	21.7	5.7	5.3	3.0	3.0	3.0	3.0	4.0	6.3	7.7	6.0	7.0	4.8
FIRST CUT	30.0	6.7	4.7	3.0	3.0	4.0	3.0	4.3	6.0	7.0	6.7	6.0	4.8
WINTERPLAY	53.3	6.0	3.7	3.7	3.7	4.0	3.0	4.3	5.7	6.7	7.0	5.0	4.8
ALLSPORT	26.7	6.3	7.0	3.0	3.0	3.0	3.0	4.0	5.3	7.7	6.0	7.0	4.7
BARIVIERA	41.7	5.7	3.0	3.7	3.7	4.0	3.3	4.3	5.7	6.0	7.0	4.3	4.7
BARLENNIUM	28.3	6.7	7.0	3.0	3.0	3.0	3.0	4.3	6.0	7.3	6.0	6.7	4.7
LS-DE1	30.0	6.5	7.0	3.0	3.0	3.0	3.0	4.0	5.5	8.0	6.0	7.0	4.7
MOUNTAIN VIEW 2	33.3	5.7	6.3	3.0	3.3	3.0	3.0	4.0	5.7	7.7	6.0	6.3	4.7
SNOWBIRD	50.0	5.3	4.0	3.3	3.7	4.0	3.0	4.3	6.0	6.7	6.7	5.0	4.7
TOURSTAR	20.0	5.0	6.0	3.0	3.0	3.0	3.0	4.0	6.0	7.5	6.0	7.0	4.7
CAPRI	33.3	5.0	5.3	3.0	3.0	3.0	3.0	4.3	6.0	7.7	5.7	6.0	4.6
CEBECO BLEND 1	31.7	5.7	5.7	3.0	3.0	2.7	3.3	4.0	5.7	7.3	6.0	6.7	4.6
CHARGER	26.7	4.3	6.0	3.0	3.0	3.0	3.0	4.0	5.7	7.0	6.3	6.3	4.6
CHARGER II	33.3	6.0	5.7	3.0	3.0	3.3	3.0	4.0	5.7	7.0	6.0	6.0	4.6
LEADERBOARD	25.0	6.0	6.0	3.0	3.0	3.0	3.0	3.5	5.5	7.5	6.0	7.0	4.6
MARVELGREEN SUPREME	36.7	6.3	5.7	3.0	3.3	3.0	3.0	4.3	4.7	7.3	6.0	6.7	4.6
MED-007	30.0	6.3	6.0	3.0	3.0	3.0	3.0	4.0	5.0	7.3	6.0	6.7	4.6
MOUNTAIN VIEW 1	28.3	6.3	6.0	3.0	3.0	3.0	3.0	4.0	5.0	7.3	6.0	7.0	4.6
MOUNTAIN VIEW 3	26.7	6.7	7.0	3.0	3.0	3.0	3.0	3.7	5.7	7.3	6.0	7.0	4.6
MP111	15.0	7.0	7.0	3.0	3.0	3.0	3.0	3.5	6.0	7.0	6.0	6.5	4.6
PICK HR A-97	28.3	7.0	6.3	3.0	3.0	3.0	3.3	4.0	5.3	7.0	6.0	7.0	4.6
PIROUETTE	28.3	6.3	7.0	3.0	3.0	3.0	3.0	4.3	5.7	7.3	6.0	6.3	4.6
PRIME	23.3	6.0	6.7	3.0	3.0	3.0	3.0	4.0	5.3	7.7	6.0	6.3	4.6
PROFESSIONAL'S SELECT	28.3	5.7	6.3	3.0	3.0	3.0	3.0	4.0	5.3	7.0	6.0	7.0	4.6
PST-3BK-99	30.0	7.0	7.0	3.0	3.0	3.0	3.0	4.0	5.3	7.7	6.0	6.7	4.6
TOP HAT	30.0	5.7	5.7	3.0	3.0	3.0	3.0	4.0	5.7	7.3	6.0	6.7	4.6
ELFKIN	25.0	6.3	6.3	3.0	3.0	2.7	3.0	4.0	5.3	7.0	6.0	6.7	4.5
FUTURA 2500	25.0	6.0	6.7	3.0	3.0	3.0	3.0	3.3	5.3	7.0	6.0	7.0	4.5
MP58	20.0	6.7	6.3	3.0	3.0	3.0	3.0	3.3	4.7	7.3	6.0	7.0	4.5
PHANTOM	26.7	7.0	6.7	3.0	3.0	3.0	3.0	3.7	4.7	7.3	6.0	6.7	4.5
SEVILLE II	20.0	7.7	7.0	3.0	3.0	3.0	3.0	3.7	5.0	7.3	6.5	7.0	4.5
FIESTA 3	18.3	6.7	7.0	3.0	3.0	3.0	3.0	3.7	5.3	7.3	6.0	6.7	4.4
PARAGON	30.0	6.3	6.3	3.0	3.0	3.0	3.0	3.7	5.3	6.7	6.0	6.0	4.4
TRANSIST	22.5	5.5	4.5	3.0	3.0	3.0	3.0	3.5	5.0	6.5	6.0	7.0	4.4
BRIGHTSTAR II	21.7	7.3	6.3	3.0	3.0	3.0	3.0	4.0	4.3	6.7	6.0	5.7	4.3
CITATION III	31.7	6.7	6.0	3.0	3.0	2.7	3.0	3.7	5.3	7.0	5.7	5.7	4.3
ABT-99-3.268	30.0	3.3	4.7	3.0	3.0	3.0	3.3	3.3	4.3	5.3	5.7	7.0	4.2
LSD VALUE	13.4	1.5	1.2	0.3	0.4	0.4	0.6	1.2	1.7	1.3	0.7	1.6	0.4
C.V. (%)	25.6	12.9	12.5	6.4	7.2	7.6	7.3	12.9	13.0	8.1	6.3	11.6	4.2

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