

## **NATIONAL TURFGRASS EVALUATION PROGRAM**

The National Turfgrass Evaluation Program (NTEP) is designed to develop and coordinate uniform evaluation trials of turfgrass varieties and promising selections in the United States and Canada. Test results can be used by national companies and plant breeders to determine the broad picture of the adaptation of a cultivar. Results can also be used to determine if a cultivar is well adapted to a local area or level of turf maintenance.

Briefly, the NTEP is a self-supporting, non-profit program, sponsored by the Beltsville Agricultural Research Center and the National Turfgrass Federation, Inc. Program policy is made by a policy committee consisting of one member from each of the four (4) Regional Turfgrass Research Committees in the United States, one member from the Lawn Seed Division of the American Seed Trade Association, one member from the United States Golf Association (USGA) Green Section, one member from the Golf Course Superintendents Assoc. of America (GCSAA), one member for the Turfgrass Producers International (TPI), one member from the Turfgrass Breeders Association and an executive director. The program does not make variety recommendations. However, the data from tests can be used by extension specialists and others for making recommendations.

The policy committee is responsible for determining program policy including, (1) requirements for submission of entries, (2) scheduling tests, (3) evaluation methods, (4) selecting standard or control test entries, (5) setting entry fees, (6) coordinating tests in their respective regions, (7) establishing guidelines for publication and data distribution and (8) scheduling committee meetings.

Executive Director - Kevin N. Morris, National Turfgrass Federation, Inc.

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## A Guide to NTEP Turfgrass Ratings

### Introduction

The quality and scientific merit of NTEP data is extremely important. However, the evaluation of turfgrass species and cultivars is a difficult and complex issue. Furthermore, turfgrass evaluation is generally a subjective process based on visual estimates of factors, like genetic color, stand density, leaf texture, uniformity and quality. These factors can not be measured in the same way as other agricultural crops. Turfgrass quality is not a measure of yield or nutritive value. Turfgrass quality is a measure of aesthetics (i.e. density, uniformity, texture, smoothness, growth habit and color), and functional use. The most common way of assessing turfgrass quality is a visual rating system that is based on the turfgrass evaluator's judgement.

### General Considerations

Most visual ratings collected on NTEP trials are based on a 1 to 9 rating scale. One is the poorest or lowest and 9 is the best or highest rating. However, a few characteristics, such as winter kill or percent living ground cover, are rated on a percentage basis, again by using the evaluator's judgement. Most disease ratings found in NTEP reports will use the 1-9 scale, 9=no disease except where the evaluator made a judgement of the percentage of disease in each plot. Percent disease data will be found in separate tables and will normally not be included with disease data using the 1-9 scale.

### Turfgrass Quality

Turfgrass Quality is based on 9 being outstanding or ideal turf and 1 being poorest or dead. A rating of 6 or above is generally considered acceptable. A quality rating value of 9 is reserved for a perfect or ideal grass, but it also can reflect an absolutely outstanding treatment plot. The NTEP requires quality ratings on a monthly basis. Quality ratings take into account the aesthetic and functional aspects of the turf. Quality ratings are not based on color alone, but on a combination of color, density, uniformity, texture, and disease or environmental stress.

Turfgrass quality ratings are grouped and presented by region, management level, a particular stress (shade, traffic, etc.) and in some cases, by individual location (starting with 2001 data, data from each location will be posted separately as well on the NTEP web site, <http://www.ntep.org>). Also available now is a summary table (Appendix) in the back of this report. This summary table includes various statistical measures not previously compiled for NTEP reports. For an explanation of this table and these changes, please go to the NTEP web site at <http://www.ntep.org/pdf/grandmean.mem.pdf>.

### Other Ratings

More detailed information on the ratings of specific characteristics can be found on the NTEP web site at <http://www.ntep.org/reports/ratings.htm>.

2002 NATIONAL ST. AUGUSTINEGRASS TEST

LOCATIONS SUBMITTING DATA FOR 2004

<u>State</u>	<u>Location</u>	<u>Code</u>
California	Pomona	CA7
Florida	Jay	FL3
Georgia	Griffin	GA1
Georgia	Savannah (Shade)	GA2
Louisiana	Calhoun	LA2
Mississippi	Mississippi State	MS1
Oklahoma	Lane	OK2
South Carolina	Florence	SC1
Texas	College Station	TX2

2002 NATIONAL ST. AUGUSTINEGRASS TEST

Entries and Sponsors

Entry No.	Name	Sponsor
1	Raleigh	Standard entry
2	Floritam	Standard entry
3	Delmar	Standard entry
4	Mercedes	Super Sod/Patten Seed
5	MSA 31	Mississippi State Univ.
6	MSA 2-3-98	Mississippi State Univ.

TABLE A.

2004 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN  
THE 2002 NATIONAL ST. AUGUSTINEGRASS TEST

LOCATION	SOIL TEXTURE	SOIL PH	SOIL PHOSPHOROUS (LBS/ACRE)	SOIL POTASSIUM (LBS/ACRE)	NITROGEN (LBS/1000 SQ FT)	SUN OR SHADE	MOWING HEIGHT (IN)	IRRIGATION PRACTICED
CA7	SANDY LOAM	7.1-7.5	0-60	376-500	6.1-7.0	LIGHT SHADE	1.1-1.5	TO PREVENT STRESS
FL3	-	-	-	-	-	-	-	-
GA1	-	-	-	-	-	-	-	-
GA2	SAND	-	-	-	-	DENSE SHADE	2.6-3.0	TO PREVENT DORMANCY
LA2	-	-	-	-	-	-	-	-
MS1	SANDY LOAM	6.6-7.0	151-270	241-375	2.1-3.0	FULL SUN	2.6-3.0	TO PREVENT STRESS
OK2	SANDY LOAM	5.6-6.0	151-270	241-375	3.1-4.0	FULL SUN	2.6-3.0	TO PREVENT STRESS
SC1	SANDY LOAM	5.6-6.0	61-150	0-150	1.1-2.0	FULL SUN	2.6-3.0	TO PREVENT STRESS
TX2	SANDY CLAY LOAM	7.6-8.5	61-150	151-240	3.1-4.0	FULL SUN	2.1-2.5	TO PREVENT STRESS

TABLE B.

## LOCATIONS AND DATA COLLECTED IN 2004

LOCATION	APRIL QUALITY RATING	MAY QUALITY RATING	JUNE QUALITY RATING	JULY QUALITY RATING	AUGUST QUALITY RATING	SEPTEMBER QUALITY RATING	OCTOBER QUALITY RATING	NOVEMBER QUALITY RATING	DECEMBER QUALITY RATING	GENETIC COLOR	SPRING GREENUP	LEAF TEXTURE	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY
CA7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FL3		X	X	X	X	X	X	X		X	X		X	X	X
GA1				X	X	X	X	X		X			X	X	
GA2	X	X		X	X	X							X	X	X
LA2		X	X	X	X	X					X				
MS1	X	X	X	X	X	X	X	X		X	X	X			
OK2		X	X	X	X	X	X	X		X	X	X		X	
SC1	X	X	X	X	X	X	X	X		X	X	X			
TX2	X	X		X	X	X					X				

TABLE B. (CONT'D)

## LOCATIONS AND DATA COLLECTED IN 2004

LOCATION	PERCENT COVER SPRING	FROST TOLERANCE	PERCENT WINTER KILL	BROWN PATCH WARM TEMP.	BROWN PATCH COOL TEMP.	TAKE-ALL PATCH	FALL COLOR SEPTEMBER	FALL COLOR OCTOBER	FALL COLOR NOVEMBER	FALL COLOR DECEMBER	SEEDHEAD RATINGS	HORIZONTAL SPREAD RATINGS	BROWN PATCH/ GRAY LEAF SPOT SEPTEMBER	OCTOBER
CA7	X							X	X					
FL3								X	X	X				
GA1		X						X	X				X	X
GA2														
LA2														
MS1	X													
OK2	X	X	X			X		X	X		X	X		
SC1				X	X			X	X		X			
TX2	X			X			X			X				

TABLE 1. MEAN TURFGRASS QUALITY RATINGS OF ST. AUGUSTINEGRASS CULTIVARS  
GROWN AT EIGHT LOCATIONS IN THE U.S. 1/  
2004 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/								
NAME	CA7	FL3	GA1	LA2	MS1	OK2	SC1	TX2
* DELMAR	5.8	4.4	7.3	5.7	6.7	6.5	6.0	4.9
* FLORATAM	6.1	6.3	6.6	4.9	4.8	6.5	6.3	5.7
* MERCEDES	6.6	6.5	7.6	6.6	7.2	5.3	6.6	5.3
MSA 2-3-98	6.3	6.4	7.0	6.5	7.4	7.3	6.6	4.9
MSA 31	6.7	6.0	7.7	6.3	6.7	5.0	6.5	5.3
* RALEIGH	5.6	4.9	6.9	6.1	6.4	6.5	5.7	5.2
LSD VALUE	0.9	1.0	1.0	0.7	0.2	0.8	0.6	1.1
C.V. (%)	8.9	10.0	8.4	7.3	2.2	7.9	5.5	13.4

TABLE 2. MEAN TURFGRASS QUALITY RATINGS OF ST. AUGUSTINEGRASS CULTIVARS FOR EACH  
MONTH GROWN AT SAVANNAH (SHADE), GA 1/  
2004 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF: MONTHS 2/						
NAME	APR	MAY	JUL	AUG	SEP	MEAN
MSA 31	5.7	8.0	8.3	7.7	8.3	7.6
RALEIGH	7.3	8.7	7.7	7.0	6.7	7.5
MSA 2-3-98	8.0	8.5	7.0	6.5	7.0	7.4
DELMAR	6.0	7.7	7.7	7.3	6.7	7.1
MERCEDES	6.7	7.7	7.0	6.7	6.7	6.9
FLORATAM	1.3	6.7	6.7	6.7	6.3	5.5
LSD VALUE	1.1	0.9	1.3	1.7	1.2	0.7
C.V. (%)	11.4	6.9	10.5	14.4	10.0	5.9

\* COMMERCIALY AVAILABLE IN THE USA IN 2005.

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

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

TABLE 3. GENETIC COLOR RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN 2/

NAME	CA7	FL3	GA1	MS1	OK2	SC1	MEAN
MERCEDES	7.7	8.0	8.0	7.3	5.7	7.7	7.4
MSA 2-3-98	6.7	7.5	7.7	7.3	7.7	7.3	7.4
MSA 31	7.3	8.0	8.0	7.3	6.3	6.7	7.3
DELMAR	6.0	6.5	8.0	7.0	8.0	7.7	7.2
RALEIGH	5.7	6.5	7.7	7.0	7.7	7.3	7.0
FLORATAM	6.7	6.7	7.0	6.3	5.0	7.0	6.4
LSD VALUE	1.7	1.2	0.8	0.8	0.8	0.8	0.4
C.V. (%)	15.8	9.5	6.8	6.7	7.0	7.2	9.2

TABLE 4. SPRING GREENUP RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

SPRING GREENUP RATINGS 1-9; 9=COMPLETELY GREEN 2/

NAME	CA7	FL3	LA2	MS1	OK2	SC1	TX2	MEAN
MERCEDES	7.7	2.3	6.0	5.7	4.7	3.0	2.7	4.6
DELMAR	5.0	2.5	6.7	5.3	5.3	3.0	3.3	4.5
MSA 2-3-98	6.7	2.0	6.7	6.0	3.0	2.7	2.7	4.2
MSA 31	7.7	4.0	5.3	3.0	2.3	2.0	4.0	4.0
RALEIGH	7.0	2.5	5.7	5.0	3.3	2.0	2.0	3.9
FLORATAM	6.3	4.7	4.7	2.7	2.0	1.0	4.0	3.6
LSD VALUE	1.5	1.2	1.3	0.9	0.8	0.4	0.7	0.4
C.V. (%)	14.0	23.1	13.4	12.5	13.7	10.3	13.1	15.1

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

TABLE 5. LEAF TEXTURE RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 2/

NAME	CA7	MS1	OK2	SC1	MEAN
MSA 31	2.7	8.0	6.7	2	4.8
MSA 2-3-98	3.3	7.0	6.0	2	4.6
MERCEDES	3.0	7.0	7.0	1	4.5
RALEIGH	3.3	5.7	5.7	1	3.9
DELMAR	2.3	5.7	5.0	1	3.5
FLORATAM	2.7	4.0	4.3	1	3.0
LSD VALUE	1.3	0.5	0.7	0	0.4
C.V. (%)	27.1	5.4	7.1	0	11.6

TABLE 6. SPRING DENSITY RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	FL3	GA1	GA2	MEAN
MSA 2-3-98	6.0	8.0	7.5	7.2
RALEIGH	3.5	8.3	7.7	6.5
MERCEDES	5.3	8.0	6.0	6.4
MSA 31	4.3	7.0	7.3	6.2
FLORATAM	5.7	7.0	3.3	5.3
DELMAR	2.5	4.0	5.7	4.1
LSD VALUE	1.3	1.7	1.5	0.9
C.V. (%)	16.4	14.6	14.6	15.4

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 7. SUMMER DENSITY RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/					
NAME	FL3	GA1	GA2	OK2	MEAN
MSA 2-3-98	7.0	8.7	6.5	7.7	7.5
MSA 31	6.3	8.7	8.3	6.3	7.4
MERCEDES	6.7	9.0	6.7	6.7	7.3
RALEIGH	5.0	9.0	7.0	7.0	7.0
FLORATAM	6.7	8.7	5.7	6.3	6.8
DELMAR	4.5	8.3	6.3	6.0	6.3
LSD VALUE	1.3	1.0	1.7	0.8	0.6
C.V. (%)	11.7	7.1	14.9	7.1	10.3

TABLE 8. FALL DENSITY RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/			
NAME	FL3	GA2	MEAN
MSA 31	7.3	8.3	7.8
MSA 2-3-98	8.5	7.0	7.8
MERCEDES	8.7	6.3	7.5
FLORATAM	8.7	5.7	7.2
DELMAR	7.0	6.3	6.7
RALEIGH	7.5	5.3	6.4
LSD VALUE	1.3	1.4	1.0
C.V. (%)	9.4	12.6	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 9. PERCENT LIVING GROUND COVER (SPRING) RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	CA7	MS1	OK2	TX2	MEAN
MSA 2-3-98	97.3	88.3	76.7	99.0	90.3
MERCEDES	99.0	90.0	70.0	97.7	89.2
RALEIGH	99.0	86.7	70.0	97.7	88.3
DELMAR	96.3	85.0	76.7	91.3	87.3
MSA 31	97.7	56.7	46.7	97.7	74.7
FLORATAM	99.0	40.0	20.0	99.0	64.5
LSD VALUE	2.5	11.4	11.4	7.1	4.4
C.V. (%)	1.6	9.5	11.8	4.5	6.7

TABLE 10. FROST TOLERANCE RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

FROST TOLERANCE RATINGS 1-9; 9=NO INJURY 2/

NAME	GA1	OK2	MEAN
FLORATAM	6.7	4.0	5.3
RALEIGH	4.0	6.3	5.2
MSA 2-3-98	3.3	6.7	5.0
MERCEDES	2.3	7.3	4.8
DELMAR	2.3	6.3	4.3
MSA 31	2.3	5.3	3.8
LSD VALUE	2.4	1.8	1.5
C.V. (%)	43.1	18.8	28.1

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 11. PERCENT WINTER KILL RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

PERCENT WINTER KILL RATINGS: LOCATIONS 2/

NAME	OK2
FLORATAM	80.0
MSA 31	53.3
MERCEDES	30.0
RALEIGH	30.0
DELMAR	23.3
MSA 2-3-98	23.3
LSD VALUE	11.4
C.V. (%)	17.7

TABLE 12. BROWN PATCH (WARM TEMPERATURE) RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/

NAME	SC1	TX2	MEAN
MSA 31	8.3	7.0	7.7
FLORATAM	8.3	6.7	7.5
MERCEDES	6.3	7.7	7.0
MSA 2-3-98	6.7	6.3	6.5
DELMAR	5.0	7.0	6.0
RALEIGH	4.3	5.3	4.8
LSD VALUE	3.3	5.5	3.2
C.V. (%)	31.2	51.0	42.5

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

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

TABLE 13. BROWN PATCH (COOL TEMPERATURE) RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/

NAME	SC1
FLORATAM	7.0
MSA 31	6.3
MSA 2-3-98	6.0
MERCEDES	5.7
DELMAR	5.3
RALEIGH	5.3
LSD VALUE	2.7
C.V. (%)	28.6

TABLE 14. TAKE-ALL PATCH RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

TAKE-ALL PATCH RATINGS 1-9; 9=NO DISEASE 2/

NAME	OK2
FLORATAM	7.3
MSA 2-3-98	7.0
DELMAR	6.0
RALEIGH	5.7
MSA 31	4.3
MERCEDES	4.0
LSD VALUE	0.9
C.V. (%)	10.1

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 15. FALL COLOR (SEPTEMBER) RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

FALL COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	TX2
FLORATAM	7.0
MERCEDES	6.7
MSA 31	6.7
RALEIGH	6.7
DELMAR	6.3
MSA 2-3-98	6.3
LSD VALUE	1.1
C.V. (%)	10.1

TABLE 16. FALL COLOR (OCTOBER) RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

FALL COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	CA7	FL3	GA1	OK2	MEAN
DELMAR	5.3	5.5	8.3	7.3	6.6
MSA 31	5.7	5.7	8.0	6.7	6.5
FLORATAM	5.0	6.3	7.0	7.7	6.5
MERCEDES	5.3	5.7	7.7	5.0	5.9
MSA 2-3-98	4.7	5.5	7.7	5.7	5.9
RALEIGH	4.3	5.5	7.0	4.7	5.4
LSD VALUE	1.4	1.6	0.7	1.4	0.7
C.V. (%)	17.4	16.0	5.4	14.3	12.9

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 17. FALL COLOR (NOVEMBER) RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

FALL COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	CA7	FL3	GA1	OK2	SC1	MEAN
MSA 31	5.3	4.3	5.3	7.0	6.0	5.6
DELMAR	3.7	4.0	6.3	7.3	5.0	5.3
FLORATAM	4.0	4.0	4.3	8.3	5.0	5.1
MERCEDES	4.3	4.3	6.0	5.7	5.3	5.1
MSA 2-3-98	3.7	4.5	5.3	5.7	4.7	4.8
RALEIGH	2.7	4.0	5.3	4.7	4.7	4.3
LSD VALUE	1.8	0.8	1.1	2.2	2.3	0.8
C.V. (%)	28.7	10.8	12.2	21.6	27.7	22.0

TABLE 18. FALL COLOR (DECEMBER) RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

FALL COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	FL3	TX2	MEAN
DELMAR	2.5	3.3	2.9
RALEIGH	3.0	2.7	2.8
MERCEDES	3.0	2.3	2.7
MSA 31	3.0	2.3	2.7
FLORATAM	2.7	2.7	2.7
MSA 2-3-98	2.0	2.7	2.3
LSD VALUE	0.6	1.3	0.8
C.V. (%)	13.4	30.6	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 19. SEEDHEAD RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

SEEDHEAD RATINGS 1-9; 9=NONE 2/

NAME	OK2
MSA 31	7.3
MERCEDES	7.0
FLORATAM	5.7
MSA 2-3-98	5.3
RALEIGH	4.0
DELMAR	2.7
LSD VALUE	1.2
C.V. (%)	14.0

TABLE 20. HORIZONTAL SPREAD RATINGS OF ST. AUGUSTINEGRASS CULTIVARS 1/  
2004 DATA

HORIZONTAL SPREAD RATINGS 1-9; 9=BEST 2/

NAME	OK2
FLORATAM	6.3
MERCEDES	4.7
MSA 2-3-98	4.3
RALEIGH	4.3
DELMAR	3.3
MSA 31	3.3
LSD VALUE	2.1
C.V. (%)	29.4

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 21. BROWN PATCH / GRAY LEAF SPOT RATINGS OF ST. AUGUSTINEGRASS CULTIVARS  
AT GRIFFIN, GA 1/  
2004 DATA

BROWN PATCH / GRAY LEAF SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	SEPTEMBER	OCTOBER	MEAN
DELMAR	9.0	8.7	8.8
MERCEDES	9.0	8.7	8.8
MSA 2-3-98	9.0	8.3	8.7
MSA 31	9.0	7.7	8.3
RALEIGH	8.7	8.0	8.3
FLORATAM	7.7	8.0	7.8
LSD VALUE	2.4	1.7	1.9
C.V. (%)	11.4	8.8	9.4

APPENDIX TABLE. SUMMARY OF TURFGRASS QUALITY RATINGS FOR ST. AUGUSTINEGRASS CULTIVARS  
IN THE 2002 NATIONAL ST. AUGUSTINEGRASS TEST 1/  
2004 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	QUALITY MEAN */	MAXIMUM IN TOP 25% **/ percent
NAME	grand_q	percent
DELMAR	6.0	0.0
FLORATAM	5.9	12.5
MERCEDES	6.5	37.5
MSA 2-3-98	6.6	37.5
MSA 31	6.3	25.0
RALEIGH	6.0	0.0
LSD VALUE	0.3	
C.V. (%)	8.2	

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.

\*/ MEAN - AN AVERAGE OF ALL THE TURFGRASS QUALITY RATINGS FROM ALL LOCATIONS.

\*\*/ MAXIMUM IN TOP 25% - THE PERCENTAGE OF LOCATIONS WHERE THAT ENTRY FINISHED IN THE TOP 25% OF ALL ENTRIES.