

# National Turfgrass Evaluation Program (NTEP) 2004 Perennial Ryegrass Variety Trial

## *Poa Annua* Ingress 2010 Final Progress Report

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The National Turfgrass Evaluation Program sponsors variety trials throughout the continental U. S. and Canada using uniform testing procedures. The objective is to evaluate and identify cultivars (varieties) that perform best under the different and diverse environmental conditions (climatic, soil, and cultural) associated with the many NTEP locations cooperating as part of the program. NTEP publishes annual reports that summarize the results collected at the 25 or more NTEP sites such as the University of Massachusetts. The NTEP data is made available on line at [www.ntep.org](http://www.ntep.org) and is used by turfgrass specialist and practitioners to help recommend and select varieties that grow best at their specific location. NTEP evaluates turfgrasses adapted to both cool-season (northern latitudes) and warm-season (southern latitudes) areas.

The 2004 NTEP Perennial Ryegrass Test was seeded from October 9 to 12, 2004. There are 120 varieties represented in the test including 3 replications for each entry (cultivar) for a grand total of 360 plots. Turfgrass quality ratings (1 to 9 scale, 9=best) are taken throughout the growing season and yearly averages are reported in Table 3 including means averaged over a 5-year period. *Poa annua* encroachment means averaged over a 4-year period are reported in Table 4. The 2009 growing season data is the last reporting year. All data means for entries are order in tables from best to worst.

### Recommendation:

The following commercially available entries have performed well in overall turfgrass quality exhibiting acceptable quality ( $\geq 6.0$ ) after five years : All\*Star3, Charismatic, Derby Xtreme, Fiesta 4, Line Drive GLS, Manhattan 5, RNS, Secretariat II, and Silver Dollar. All have shown good ( $>5\%$  to  $\leq 10\%$  Poa) resistance to *Poa annua* based on 4-averages. Only 'Citation Fore' and 'Line Drive GLS' provide "excellent" *Poa annua* resistance ( $\leq 5.0\%$  Poa).

Entry numbers, cultivar names, and plot-plans are included in this report.

### Cultural Practices:

- **Mowing height:** 1.25 inches with reel mower, 2 to 3 mowings per week.
- **Fertility:** 3.5 lbs N/1,000 ft<sup>2</sup>/year.
- **Irrigation:** none.
- **Fungicides:** none



**RIVER ROAD**

**TURF - FARM FENCE**

2004 NATIONAL TURFGRASS EVALUATION PROGRAM PERENNIAL RYEGRASS VARIETY TRIAL

<b>Block C</b>	<b>Block B</b>	<b>Block A</b>
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2004 NATIONAL TURFGRASS EVALUATION PROGRAM PERENNIAL RYEGRASS VARIETY TRIAL

BLOCK A

PLOT PLAN										ENTRY NUMBER									
63	51	43	107	95	69	37	112	57	75	60	17	116	45	71	82	104	18	42	86
78	68	54	106	46	4	40	103	109	5	8	31	87	25	16	72	93	20	29	53
27	32	1	118	120	3	24	36	26	105	50	115	35	59	108	21	90	92	89	33
99	114	7	117	14	84	38	47	76	34	85	55	15	81	49	97	13	74	58	41
64	119	91	88	52	28	83	22	44	79	2	98	70	94	9	6	65	30	110	100
102	80	10	73	23	61	77	111	113	66	39	67	48	62	19	101	11	96	12	56

6 ft

3 ft

2004 NATIONAL TURFGRASS EVALUATION PROGRAM PERENNIAL RYEGRASS VARIETY TRIAL

BLOCK B		PLOT PLAN										ENTRY NUMBER							
49	106	40	15	114	33	56	1	73	17	85	46	68	57	38	81	9	88	13	20
43	105	58	70	22	52	71	112	99	29	47	42	66	79	24	4	30	77	104	101
6	65	21	51	111	87	48	23	69	113	120	78	98	117	115	25	44	82	45	3
107	36	11	74	84	90	16	26	86	118	32	5	95	61	55	119	67	102	93	109
75	18	103	2	28	59	89	62	92	12	31	34	54	96	60	91	116	108	63	64
35	110	41	14	72	80	83	7	39	94	76	50	53	8	37	97	10	100	27	19

6 ft

3 ft

2004 NATIONAL TURFGRASS EVALUATION PROGRAM PERENNIAL RYEGRASS VARIETY TRIAL

BLOCK C																			
PLOT PLAN						ENTRY NUMBER													
5	86	99	32	2	72	22	1	92	81	90	71	59	106	50	64	35	65	73	60
78	8	11	29	80	33	56	89	48	96	113	95	46	102	41	40	63	61	44	38
107	20	101	88	69	14	28	27	6	100	98	16	19	111	39	4	55	75	74	18
52	23	108	82	58	17	85	83	109	47	114	117	43	13	12	7	91	10	94	30
115	51	68	103	36	49	79	67	34	76	31	105	104	24	62	112	93	87	120	26
21	45	110	118	57	97	42	9	70	119	54	66	15	116	3	84	77	25	53	37

6 ft

3 ft

Table 3. 2004 NTEP Perennial Ryegrass Test: Yearly Percent Poa.

Entry Number Name‡	Percent Poa Annua				
	2006	2007	2008	2009	4 Yr Ave
80. Citation Fore*	3.3	0.0	0.0	13.3	4.2
102. Line Drive GLS*	3.3	3.3	0.0	10.0	4.2
109. D04-1667	3.3	6.7	0.0	6.7	4.2
37. LCK	3.3	6.7	3.3	6.7	5.0
120. DP 17-9788	6.7	3.3	0.0	10.0	5.0
7. Protégé GLR*	6.7	6.7	0.0	10.0	5.8
52. Secretariat II*	3.3	13.3	0.0	6.7	5.8
58. Manhattan 5*	6.7	6.7	3.3	6.7	5.8
113. APR 1670	3.3	10.0	3.3	6.7	5.8
8. Exacta II GLSR*	3.3	6.7	6.7	10.0	6.7
67. Fiesta 4*	6.7	10.0	0.0	10.0	6.7
78. RAD-PR8	3.3	10.0	3.3	10.0	6.7
87. Bar Lp 4317	6.7	10.0	0.0	10.0	6.7
92. SR 4600*	10.0	6.7	3.3	6.7	6.7
93. Harrier*	3.3	13.3	0.0	10.0	6.7
111. Pentium*	6.7	10.0	0.0	10.0	6.7
98. Panther GLS*	13.3	3.3	3.3	10.0	7.5
99. GL-2	3.3	10.0	3.3	13.3	7.5
100. RNS*	6.7	6.7	3.3	13.3	7.5
28. Accent II*	6.7	16.7	3.3	6.7	8.3
32. DP1*	6.7	3.3	6.7	16.7	8.3
62. PST-2GSM	6.7	3.3	10.0	13.3	8.3
108. D04-11T	6.7	6.7	6.7	13.3	8.3
29. Top Gun II*	6.7	16.7	3.3	10.0	9.2
34. 1G2	13.3	6.7	6.7	10.0	9.2
43. Keystone 2*	3.3	13.3	6.7	13.3	9.2
26. Phenom*	10.0	10.0	6.7	13.3	10.0
33. MMV	13.3	3.3	13.3	10.0	10.0
36. Pick RB-1	10.0	10.0	6.7	13.3	10.0
41. All*Star3*	10.0	13.3	6.7	10.0	10.0
72. Apple GL*	13.3	10.0	3.3	13.3	10.0
76. PS-2	10.0	16.7	3.3	10.0	10.0
112. APR 1648	3.3	13.3	6.7	16.7	10.0
119. Pianist	13.3	13.3	6.7	6.7	10.0
39. Palace*	13.3	6.7	6.7	16.7	10.8
49. Buena Vista*	13.3	10.0	10.0	10.0	10.8
51. Charismatic*	10.0	6.7	13.3	13.3	10.8
53. Caddieshack II*	3.3	13.3	10.0	16.7	10.8
90. SRX 4682	13.3	13.3	16.7	0.0	10.8
31. Monterey 3*	6.7	6.7	13.3	20.0	11.7
44. Primary*	10.0	13.3	6.7	16.7	11.7
47. Cabo II*	6.7	20.0	10.0	10.0	11.7
79. Brightstar SLT*	13.3	10.0	3.3	20.0	11.7
81. Silver Dollar*	6.7	16.7	10.0	13.3	11.7

Table 3. 2004 NTEP Perennial Ryegrass Test: Yearly Percent Poa.

Entry Number Name‡	Percent Poa Annua				
	2006	2007	2008	2009	4 Yr Ave
82. Gray star*	13.3	6.7	16.7	10.0	11.7
91. SRX 4692	10.0	16.7	6.7	13.3	11.7
117. DP-17-9499	10.0	10.0	16.7	10.0	11.7
3. Pacesetter*	10.0	10.0	13.3	16.7	12.5
45. Derby Xtreme*	10.0	10.0	13.3	16.7	12.5
84. Premier II*	13.3	16.7	6.7	13.3	12.5
86. Barlennium*	20.0	6.7	13.3	10.0	12.5
6. Paragon GLR*	16.7	6.7	13.3	16.7	13.3
73. Homerun*	10.0	13.3	13.3	16.7	13.3
74. DCM	13.3	13.3	13.3	13.3	13.3
85. Pinnacle II*	10.0	16.7	16.7	10.0	13.3
105. E-99*	6.7	20.0	13.3	13.3	13.3
5. Affinity*	10.0	10.0	23.3	13.3	14.2
12. GPR	10.0	10.0	26.7	10.0	14.2
22. ASP6001*	10.0	23.3	13.3	10.0	14.2
42. Amazing GS*	10.0	13.3	13.3	20.0	14.2
46. Stellar GL*	6.7	20.0	16.7	13.3	14.2
54. Goalkeeper II*	10.0	20.0	10.0	16.7	14.2
64. 04-BEN	10.0	16.7	13.3	16.7	14.2
30. Revenge GLX*	16.7	13.3	10.0	20.0	15.0
38. Regal 5*	10.0	20.0	10.0	20.0	15.0
70. PM 101	13.3	16.7	10.0	20.0	15.0
77. Palmer III*	13.3	20.0	6.7	20.0	15.0
97. Repell GLS*	13.3	10.0	16.7	20.0	15.0
107. D04-UP	20.0	10.0	13.3	16.7	15.0
27. Delaware XL*	13.3	13.3	20.0	16.7	15.8
40. Attribute*	10.0	16.7	20.0	16.7	15.8
50. Fusion*	10.0	16.7	16.7	20.0	15.8
103. AC2	10.0	26.7	10.0	16.7	15.8
114. Premier*	10.0	20.0	23.3	10.0	15.8
10. TR47	13.3	16.7	16.7	20.0	16.7
60. PST-2MNG	16.7	6.7	23.3	20.0	16.7
69. Firebolt*	10.0	26.7	16.7	13.3	16.7
96. MS2	13.3	10.0	23.3	20.0	16.7
63. PST-2LAN	10.0	33.3	6.7	20.0	17.5
101. Palmer IV*	16.7	13.3	16.7	23.3	17.5
1. LPR 02203	16.7	13.3	30.0	13.3	18.3
56. Overdrive*	16.7	13.3	23.3	20.0	18.3
106. D04-LP05	10.0	20.0	20.0	23.3	18.3
4. Pizzazz*	16.7	20.0	23.3	16.7	19.2
14. VB99	13.3	23.3	20.0	20.0	19.2
23. Wild Dance 2*	13.3	16.7	26.7	20.0	19.2
59. PST-2BLK	10.0	16.7	26.7	23.3	19.2
61. PST-2AG	16.7	20.0	23.3	16.7	19.2
71. Dart*	16.7	16.7	26.7	16.7	19.2

Table 3. 2004 NTEP Perennial Ryegrass Test: Yearly Percent Poa.

Entry Number Name†	Percent Poa Annuua				
	2006	2007	2008	2009	4 Yr Ave
110. Inspire*	16.7	16.7	13.3	30.0	19.2
48. Kokomo*	13.3	26.7	16.7	23.3	20.0
75. AF	20.0	20.0	23.3	16.7	20.0
83. Quicksilver*	13.3	23.3	16.7	26.7	20.0
95. Headstart 2*	13.3	26.7	23.3	16.7	20.0
57. PST-217	20.0	20.0	23.3	20.0	20.8
11. Presidio*	16.7	23.3	23.3	23.3	21.7
17. APS6003*	16.7	20.0	26.7	23.3	21.7
88. BAR Lp 4420	13.3	20.0	20.0	33.3	21.7
15. VB77	26.7	16.7	26.7	20.0	22.5
24. SP4	13.3	30.0	26.7	20.0	22.5
55. La Quinta*	20.0	10.0	33.3	26.7	22.5
66. Sunshine 2*	16.7	20.0	30.0	23.3	22.5
13. Halo*	13.3	20.0	36.7	23.3	23.3
19. ASP6005*	13.3	20.0	30.0	30.0	23.3
25. SNR	16.7	26.7	26.7	26.7	24.2
89. BAR Lp 4920	16.7	26.7	20.0	33.3	24.2
21. ASP6004*	20.0	20.0	33.3	26.7	25.0
65. 04-BRE	23.3	23.3	33.3	20.0	25.0
2. Panther*	26.7	30.0	20.0	26.7	25.8
16. L44	20.0	26.7	33.3	23.3	25.8
20. ASP6006*	20.0	26.7	23.3	33.3	25.8
35. Mach I*	20.0	23.3	30.0	30.0	25.8
104. Pleasure Supreme*	20.0	26.7	30.0	30.0	26.7
115. Pinnacle*	20.0	33.3	23.3	30.0	26.7
118. Galatti	23.3	23.3	33.3	33.3	28.3
94. PM 102	20.0	30.0	36.7	30.0	29.2
18. ASP6002*	30.0	26.7	33.3	30.0	30.0
9. ES45	20.0	26.7	36.7	40.0	30.8
68. Pick-02-R	36.7	36.7	50.0	33.3	39.2
116. Linn*	40.0	46.7	66.7	70.0	55.8
LSD§	13.5	16.0	18.8	11.6	7.7
Range	3.3 to 40.0	0.0 to 46.7	0.0 to 66.7	0.0 to 70.0	4.2 to 55.8

†See entry listing and plot plan for field trial location of corresponding entry.

§Any two cultivars that differ in value exceeding LSD (0.05) are statistically significant.

\*Commercially available.



Table 4. 2004 NTEP Perennial Ryegrass Test: Yearly Turf Quality†.

Entry Number Name‡	Yearly Turf Quality†				
	2006	2007	2008	2009	4 Yr Ave
37. LCK	6.56	6.38	6.33	6.19	6.37
81. Silver Dollar*	6.37	6.62	5.94	6.19	6.28
67. Fiesta 4*	6.19	6.43	6.26	6.05	6.23
41. All*Star3*	6.63	6.19	6.04	5.81	6.17
58. Manhattan 5*	6.00	6.48	6.11	5.86	6.11
112. APR 1648	6.52	6.62	5.93	5.38	6.11
100. RNS*	6.04	6.29	6.26	5.86	6.11
51. Charismatic*	6.22	6.48	5.87	5.86	6.11
33. MMV	6.37	6.38	5.85	5.71	6.08
109. D04-1667	6.63	6.57	5.56	5.48	6.06
52. Secretariat II*	6.04	6.00	6.26	5.81	6.03
102. Line Drive GLS*	6.19	6.33	5.80	5.76	6.02
45. Derby Xtreme*	6.30	6.43	5.81	5.48	6.00
72. Apple GL*	6.11	6.00	5.74	6.10	5.99
73. Homerun*	6.00	6.05	5.89	5.90	5.96
62. PST-2GSM	5.85	6.05	6.04	5.76	5.92
111. Pentium*	5.78	6.14	5.83	5.90	5.91
34. 1G2	5.93	5.95	6.17	5.57	5.90
12. GPR	5.96	6.14	5.89	5.62	5.90
28. Accent II*	5.93	6.19	5.96	5.52	5.90
80. Citation Fore*	6.26	6.00	5.57	5.76	5.90
10. TR47	6.15	6.00	5.87	5.57	5.90
96. MS2	5.89	6.00	5.81	5.81	5.88
70. PM 101	5.78	6.05	6.20	5.48	5.88
105. E-99*	5.78	6.38	5.81	5.52	5.87
36. Pick RB-1	6.19	6.05	5.87	5.38	5.87
92. SR 4600*	6.11	6.10	5.61	5.62	5.86
108. D04-11T	6.07	6.29	5.46	5.57	5.85
87. Bar Lp 4317	5.85	6.05	5.78	5.67	5.84
99. GL-2	6.30	6.29	5.54	5.19	5.83
42. Amazing GS*	6.07	6.43	5.52	5.29	5.83
22. ASP6001*	5.81	5.76	5.94	5.76	5.82
97. Repell GLS*	6.07	5.95	5.85	5.38	5.81
3. Pacesetter*	5.78	5.90	6.02	5.52	5.81
84. Premier II*	6.04	5.81	5.76	5.62	5.81
113. APR 1670	5.96	6.00	6.00	5.24	5.80
7. Protégé GLR*	6.15	5.90	5.76	5.38	5.80
43. Keystone 2*	6.26	6.43	5.17	5.33	5.80
90. SRX 4682	6.04	5.90	5.72	5.52	5.80
29. Top Gun II*	5.81	6.19	5.70	5.48	5.80
86. Barlennium*	5.78	6.05	5.80	5.52	5.79
76. PS-2	5.85	5.90	5.81	5.57	5.79
57. PST-217	5.96	6.10	5.46	5.62	5.79
71. Dart*	6.11	5.81	5.43	5.71	5.77

Table 4. 2004 NTEP Perennial Ryegrass Test: Yearly Turf Quality†.

Entry Number Name‡	Yearly Turf Quality†				
	2006	2007	2008	2009	4 Yr Ave
8. Exacta II GLSR*	6.04	6.14	5.48	5.38	5.76
5. Affinity*	5.85	5.86	5.81	5.43	5.74
14. VB99	6.11	5.62	5.56	5.67	5.74
53. Caddieshack II*	5.52	5.90	5.70	5.81	5.73
78. RAD-PR8	5.78	6.24	5.39	5.52	5.73
15. VB77	5.70	5.76	5.69	5.76	5.73
49. Buena Vista*	6.33	6.29	5.24	5.05	5.73
39. Palace*	5.96	5.95	5.63	5.33	5.72
103. AC2	5.93	5.90	5.56	5.43	5.70
56. Overdrive*	5.81	6.00	5.50	5.48	5.70
74. DCM	6.11	6.00	5.26	5.38	5.69
23. Wild Dance 2*	6.04	5.62	5.61	5.48	5.69
64. 04-BEN	5.59	5.71	5.81	5.62	5.69
120. DP 17-9788	5.89	6.00	5.80	5.05	5.68
114. Premier*	5.63	5.71	5.80	5.57	5.68
32. DP1*	6.30	6.00	5.30	5.10	5.67
82. Gray star*	5.96	6.14	5.28	5.29	5.67
98. Panther GLS*	5.89	6.43	5.69	4.67	5.67
107. D04-UP	5.85	5.76	5.39	5.67	5.67
117. DP-17-9499	6.30	6.05	5.31	5.00	5.66
19. ASP6005*	5.89	5.62	5.59	5.43	5.63
110. Inspire*	5.85	5.71	5.57	5.38	5.63
31. Monterey 3*	5.48	5.76	5.70	5.57	5.63
60. PST-2MNG	5.74	5.76	5.44	5.57	5.63
26. Phenom*	6.22	5.71	5.72	4.86	5.63
30. Revenge GLX*	5.70	5.95	5.61	5.24	5.63
119. Pianist	5.85	6.00	5.59	5.05	5.62
77. Palmer III*	5.81	5.67	5.48	5.52	5.62
79. Brightstar SLT*	5.48	5.95	5.70	5.29	5.61
46. Stellar GL*	6.11	6.00	5.13	5.14	5.60
63. PST-2LAN	5.26	5.86	5.59	5.67	5.59
54. Goalkeeper II*	5.44	5.62	5.78	5.52	5.59
6. Paragon GLR*	5.59	5.67	5.70	5.38	5.59
69. Firebolt*	5.89	5.57	5.54	5.29	5.57
101. Palmer IV*	5.89	5.81	5.57	5.00	5.57
61. PST-2AG	5.93	5.76	5.17	5.38	5.56
40. Attribute*	6.11	6.00	4.93	5.14	5.55
93. Harrier*	6.07	5.95	5.02	5.10	5.54
38. Regal 5*	6.11	5.81	5.17	5.05	5.53
13. Halo*	5.78	5.52	5.33	5.48	5.53
75. AF	6.00	5.76	5.44	4.90	5.53
44. Primary*	5.59	5.86	5.41	5.24	5.52
11. Presidio*	5.96	5.48	5.44	5.19	5.52
59. PST-2BLK	5.15	5.62	5.67	5.62	5.51
48. Kokomo*	6.19	5.76	5.44	4.62	5.50

Table 4. 2004 NTEP Perennial Ryegrass Test: Yearly Turf Quality†.

Entry Number Name‡	Yearly Turf Quality†				
	2006	2007	2008	2009	4 Yr Ave
24. SP4	5.93	5.52	5.39	5.14	5.50
91. SRX 4692	5.70	6.14	5.30	4.81	5.49
27. Delaware XL*	5.78	5.67	5.24	5.19	5.47
21. ASP6004*	5.78	5.24	5.39	5.43	5.46
106. D04-LP05	6.04	5.71	5.15	4.86	5.44
83. Quicksilver*	5.70	5.43	5.00	5.62	5.44
25. SNR	5.63	5.38	5.44	5.24	5.42
47. Cabo II*	6.37	5.71	4.72	4.86	5.42
65. 04-BRE	5.44	5.24	5.52	5.43	5.41
55. La Quinta*	5.37	5.62	5.35	5.29	5.41
50. Fusion*	5.59	5.57	5.09	5.33	5.40
104. Pleasure Supreme*	5.48	5.62	5.17	5.24	5.38
16. L44	5.81	5.33	5.30	5.05	5.37
35. Mach I*	5.78	5.19	5.33	5.19	5.37
17. APS6003*	5.81	5.52	4.98	5.14	5.37
89. BAR Lp 4920	5.48	5.62	5.31	5.00	5.35
88. BAR Lp 4420	5.81	5.52	4.94	5.00	5.32
20. ASP6006*	5.56	5.29	5.15	5.24	5.31
4. Pizzazz*	5.63	5.33	5.24	5.00	5.30
1. LPR 02203	4.56	5.38	5.39	5.71	5.26
66. Sunshine 2*	5.37	5.33	5.26	5.00	5.24
85. Pinnacle II*	5.48	5.67	5.15	4.67	5.24
18. ASP6002*	5.41	5.00	5.26	5.29	5.24
2. Panther*	5.00	5.14	5.57	5.19	5.23
9. ES45	5.59	5.19	5.09	4.95	5.21
95. Headstart 2*	5.41	5.57	4.87	4.57	5.11
115. Pinnacle*	4.96	5.05	5.20	5.14	5.09
118. Galatti	5.41	5.00	5.22	4.67	5.07
94. PM 102	5.41	4.81	4.94	4.95	5.03
68. Pick-02-R	4.67	4.43	4.70	5.14	4.74
116. Linn*	3.11	3.19	2.48	2.57	2.84
LSD§	0.57	0.62	0.77	0.69	0.48
Range	3.11 to 6.30	3.19 to 6.62	2.48 to 6.33	2.57 to 6.19	2.84 to 6.37

†1 to 9 scale, 9 = highest turf quality.

‡See entry listing and plot plan for field trial location of corresponding entry.

§Any two cultivars that differ in value exceeding LSD (0.05) are statistically significant.

\*Commercially available.