VARIETY DATA

1	Luminary	Creeping	7.7
2	Pure Distinction	Creeping	7.6
3	Legendary	Velvet	6.8
4	Barracuda	Creeping	6.8
5	Shark	Creeping	6.7
6	V8	Creeping	6.5
7	Villa	Velvet	6.4
8	Focus	Creeping	6.3
9	Proclamation	Creeping	6.3
10	Pin-Up	Creeping	6.0
11	Greenwich	Velvet	5.8
12	Declaration	Creeping	5.7
13	007	Creeping	5.6
14	Authority	Creeping	5.4
15	Penneagle II	Creeping	5.3

NAME	NJ1	NJ2	PA1	RI1	MEAN
FAITH (KO6-WA)	7.3	6.5	7.9	6.3	7.0
COCHISE IV (RKCL)	7.8	6.4	7.9	5.9	7.0
TURBO	7.6	5.9	7.7	6.6	6.9
FALCON V (ATM)	7.5	6.0	8.0	6.1	6.9
BULLSEYE	7.9	5.8	7.4	6.3	6.9
CANNAVARO (DP 50-9440)	7.4	6.1	7.8	6.1	6.9
RK 5	7.7	5.9	7.6	6.1	6.8
MONET (LTP-610 CL)	7.4	5.9	7.5	6.3	6.8
LS 1200 (SC-1)	7.0	6.0	7.6	6.5	6.8
CATALYST (NA-BT-1)	7.7	5.7	7.6	6.2	6.8
FIRECRACKER LS (MVS-MST)	7.3	6.0	7.8	6.0	6.8
JAMBOREE (IS-TF-128)	7.0	6.1	7.5	6.4	6.7
WOLFPACK II (PST-5WMB)	7.6	5.7	7.4	6.0	6.7
SHENANDOAH ELITE (RK 6)	7.2	5.7	7.6	6.1	6.6
RK 4	7.1	5.9	7.5	6.0	6.6

Variety recommendations included in these guidelines were developed from turfgrass quality data analyses for the northeast region provided by the National Turfgrass Evaluation Program, or NTEP. The following sections describe the NTEP program, as well as provide other sources of information for variety selection.

NexGen	AKB047	3.33	3.00	5.00	4.83	6.24	6.2
PSG	A03-3606-8	5.67	6.33	5.17	7.50	6.05	6.2
Rutgers	Bewitched	3.00	3.33	6.50	6.00	6.28	6.1
PST	1A4-311	4.00	4.00	6.83	7.33	6.24	6.1
PSG	A00-1395	3.00	4.00	3.83	5.67	5.71	6.0
DLF	A04-1488	2.67	3.00	5.17	5.83	5.95	5.9
Rutgers	A06-8	4.67	6.00	4.17	2.83	5.67	5.9
PST	K9-105D	4.00	4.67	5.67	5.33	5.91	5.9
Peak Genetics	A94MH-94	3.67	3.33	6.67	7.00	5.81	5.9
Rutgers	A98-344	5.00	4.67	4.33	4.50	5.67	5.9
NexGen	AKB355	5.00	4.67	4.50	5.17	6.19	5.9
PSG	A05-347	5.00	4.00	4.17	2.83	5.62	5.9
PST	K4-3	4.67	6.33	4.33	6.33	5.81	5.9
DLF	Rhapsody	4.67	5.67	4.83	5.17	5.86	5.8
Rutgers	A06-33	6.33	6.33	4.67	5.00	5.57	5.8
Rutgers	A05-322	3.00	3.33	3.83	5.00	5.57	5.8
Peak Genetics	A06-19	6.00	5.00	4.33	2.00	5.19	5.7
Rutgers	Diva	3.00	3.33	4.17	3.17	5.43	5.7

Of note...

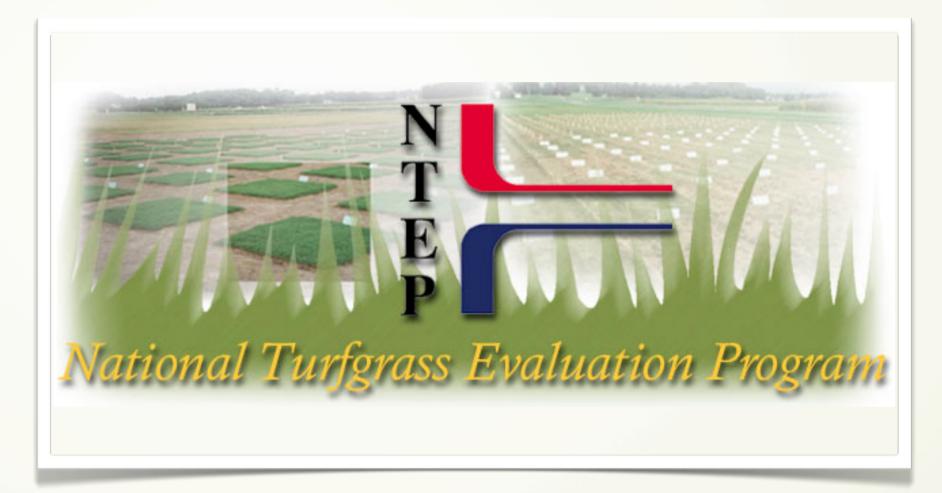
All varieties are not included in NTEP trials. Absence of a variety does not imply inferior performance.

Varieties evaluated in NTEP trials are not always available.

Like other field crops, availability and cost of turfgrass seed varies from year to year depending on factors such as weather and demand.

Competition from crops like wheat and corn that offer better yields and prices for growers have reduced the number of acres available for turfgrass. As a result, supplies are likely to be tight and prices higher, especially for high-quality seed.

SOURCES OF INFORMATION



Established in 1980, the National
Turfgrass Evaluation Program is a
partnership between the non-profit
NTEP, Inc. and the US Department of
Agriculture. NTEP coordinates trials of
new and existing turfgrass varieties
with cooperating universities around
the country to evaluate quality and

other performance characteristics.

Trials are typically conducted for five years, with data submitted at the end of each season. NTEP collects, analyzes and reports data on their website at www.ntep.org. Annual progress and final reports are available to anyone who wishes to access the site.

TURFGRASS QUALITY is the single most important rating to consider when selecting varieties using NTEP data. Data are collected monthly and represent a visual evaluation of each variety. Ratings reflect many factors that affect performance and appearance, including density, uniformity, color and texture. The rating scale is 1 to 9, where 9 is outstanding or ideal turf, 1 is poorest or dead and 6 is acceptable.

Turfgrass quality is also a reliable predicator of performance in other important categories. When varieties maintain good turfgrass quality over several years, it suggests they have good resistance to disease and environmental stresses. This is especially useful when data for specific traits are not available. Therefore, it makes sense to select FIRST based on turfgrass quality. Then, select for other criteria such as disease resistance or traffic tolerance if data are available.

The variety tables in these guidelines were developed based on turfgrass quality data analyses for the northeast region provided by NTEP. Data are from the most recently completed *five-year* trial. Information about current trials is also provided. When considering information from current trials it's a good idea to review at least two years of data, preferably three, before making variety decisions. More years of data allows greater confidence in results of the statistical analysis.

When reviewing data from any NTEP table, it's important to understand two statistical values. The first is the LSD, or least significant difference. This value is used to determine whether the difference between varieties is real or just chance. If the difference between two varieties is less than the LSD value, then the difference is not statistically significant. For example, suppose variety #1 has a quality rating of 6.2 and variety #2 has a rating of 5.7. If the LSD value is 0.6, the difference in turfgrass quality between these two varieties is not significant. However, if the LSD value is 0.4, then variety #1 has significantly higher turfgrass quality than variety #2.

The other important value is the C.V. or coefficient of variation which is a measure of variability in the data. The higher the C.V., the less reliable the results. There is no "rule" for acceptability, but a C.V. of 15 or less for turfgrass quality is generally considered reasonable. Higher C.V. values can be expected in ratings for diseases and insects due to their non-uniform distribution across test plots.

The gallery on <u>page 15</u> goes through the procedure for establishing a typical NTEP trial. The gallery on <u>page 16</u> provides other sources of information about varieties.



1. Seed companies and turfgrass breeders are notified by NTEP of an upcoming trial and asked to submit entries. Entries may be experimental or already available in the marketplace. The fee (per entry) ranges from \$5,000 - \$10,000 for a typical five-year trial.















California	Palo Alto (Non-Mowed)	CA8
Illinois	Urbana	IL1
Illinois	Carbondale (Shade)	IL2
Maryland	College Park	MD1
Minnesota	St. Paul	MN1
Minnesota	St. Paul (Traffic)	MN2
Nebraska	Mead	NE1
New Jersey	Adelphia	NJ2
New York	Ithaca	NY1
Pennsylvania	University Park	PA1
Rhode Island	Kingston	RI1
Utah	Logan	UT1
Virginia	Blacksburg	VA1
Washington	Puyallup	WA3
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^{2.} NTEP distributes seed for each entry to the participating locations around the country. Each location receives the same varieties.













3. University cooperators set up trials, typically in a completely randomized design with three replications. Seed is sown so that each experimental plot contains one variety.



















4. Turf covers that allow penetration of light and water may be used during establishment to prevent seed washouts in heavy rain.



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5. Entries are rated monthly for turfgrass quality. Other traits may also be evaluated depending on trial protocol. Differences in genetic color of perennial ryegrass can be seen in this trial.















		NI	TEP Tria	ls					
* SR 5130 (SRX 51G)	4.6	7.2	4.8	6.2	5.6	6.6	6.2	6.8	5.9
* FORTITUDE (TL 53)	5.1	7.3	5.9	5.4	5.6	6.7	6.2	5.7	5.9
* RELIANT IV (A01630REL)	4.8	7.4	3.9	6.0	5.5	5.9	6.7	7.3	5.8
* OXFORD	4.5	7.5	4.5	6.0	6.0	5.4	6.7	6.9	5.8
* WENDY JEAN (CO3-RCE)	5.5	7.3	5.3	4.9	5.8	6.3	6.0	6.0	5.8
* PREDATOR	4.5	7.6	4.4	6.2	5.6	5.8	6.6	6.5	5.8
* TREAZURE II (PST-4TZ)	5.4	7.3	4.0	5.4	6.2	6.1	6.1	6.6	5.8
* GARNET (PICK CRF 1-03)	5.3	7.6	5.5	4.7	5.7	6.2	5.9	5.9	5.7
* FIREFLY (SPM)	4.9	7.1	4.1	6.5	5.6	5.1	6.8	6.5	5.7
* LACROSSE (IS-FRC 17)	4.1	7.4	4.9	5.7	5.7	6.3	6.1	6.5	5.7
* CARDINAL (IS-FRR 30)	5.0	7.0	5.5	5.1	5.4	6.6	6.2	5.7	5.7
DLF-RCM	4.9	6.8	5.5	4.8	5.8	6.4	6.1	6.0	5.7
* 7 SEAS	4.3	7.3	5.5	5.1	5.8	6.1	6.2	6.1	5.7
* COMPASS (ACF 188)	4.3	7.2	5.0	5.3	5.8	6.1	6.1	6.3	5.6
* AMBASSADOR	4.3	7.5	4.4	5.4	5.6	6.1	6.3	6.5	5.6
* LONGFELLOW II	4.1	7.3	4.6	5.6	5.6	6.3	6.3	6.3	5.6
DP 77-9885	4.6	7.0	5.3	4.8	5.5	6.3	6.0	6.2	5.6
* BERKSHIRE	4.0	8.1	4.2	6.0	5.6	4.9	6.7	6.7	5.6
* CLASS ONE (IS-FRR 29)	5.1	7.1	4.9	5.0	5.8	6.4	6.0	5.2	5.6
PST-8000	4.9	7.2	4.7	4.7	5.7	6.5	6.2	5.5	5.5
DP 77-9578	5.0	6.9	5.0	4.8	5.8	5.9	6.0	5.3	5.5
DP 77-9886	4.3	7.1	4.4	4.8	5.8	5.8	6.2	6.4	5.5
C-SMX	4.9	7.0	4.8	5.1	5.8	5.8	5.9	5.4	5.5
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^{7.} Cooperators submit data to NTEP annually. NTEP analyzes the data and presents results on their website at ntep.org.

















The CTBT was established in 2004 by cool-season turfgrass breeders to generate data on large numbers of varieties to determine which ones should be entered into an NTEP trial. Find out more at www.ctbt-us.info.









The Center for Turfgrass Science

Rutgers, The State University of New Jersey
59 Dudley Road, New Brunswick, NJ 08901-8520
848-932-9400 • turf.rutgers.edu

Research at Rutgers University includes extensive breeding work to develop turfgrasses with better stress tolerance and pest resistance. Check out annual research results at www.rutgers.edu/research/reports













Established in 2010, the non-profit Turfgrass Water Conservation Alliance conducts trials to identify turfgrass varieties that perform well in reduced water environments. Find out more at www.tgwca.org











Sports Turf Manage FOR BETTER, SAFER SPORTS TURE. SPRING 2013. VOL. 26. NO. 1.

Which Kentucky Bluegrass Cultivars Perform Better with Less Water?

Dale J. Bremer, Associate Professor, Dept. of Horticulture, Forestry and Recreation Resources, Kansas State University - Manhattan; Jason D. Lewis, Assistant Professor, Dept. of Horticulture & Crop Science, California Polytechnic State University - San Luis Obis;

Turf industry trade magazines often publish research articles, including reports on evaluation of turfgrass varieties.

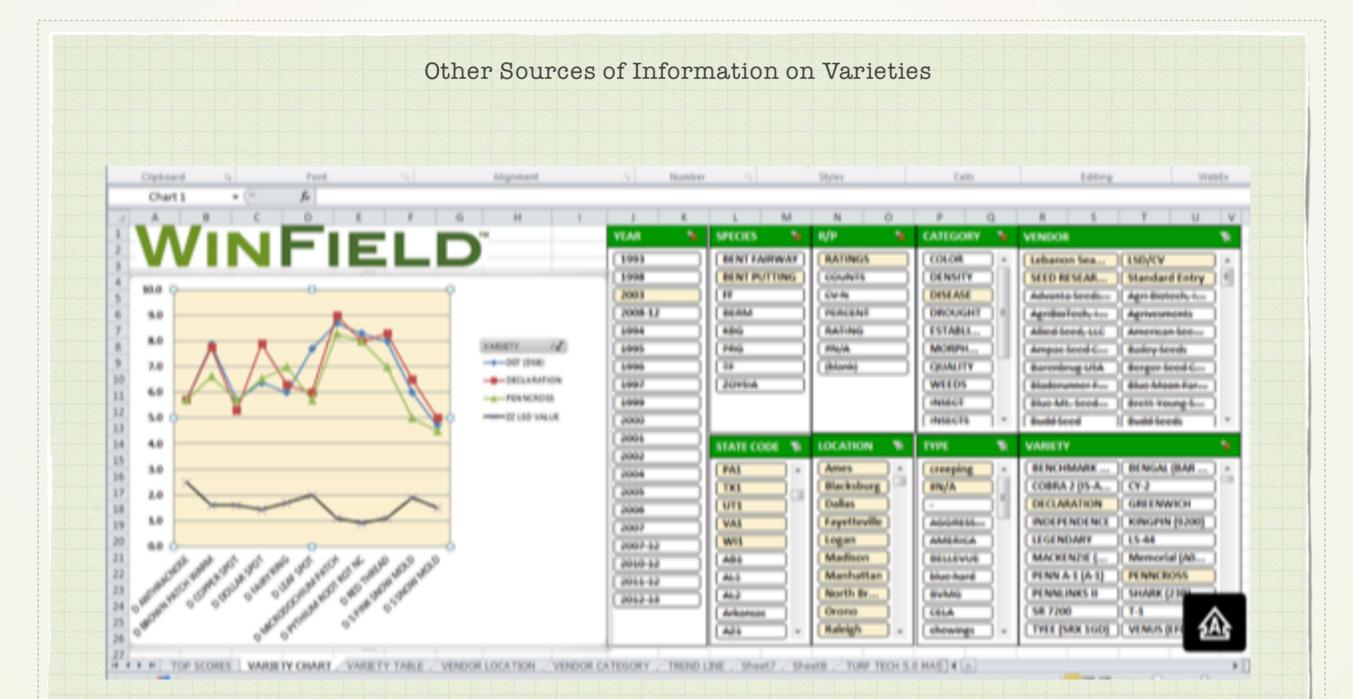












From WinField Solutions, a new Turf Tech Tool provides a searchable database of NTEP results. Learn more at http://winfieldpro.com/tools/turftech-tool









