

## 1987 NTEP TALL FESCUE VARIETY TRIAL

E. Miltner, B.E. Branham, and M. Collins  
Crop and Soil Sciences

The National Turfgrass Evaluation Program is a project sponsored by the USDA in cooperation with turfgrass breeders, seed producers, and university researchers. The purpose of the NTEP is to identify turfgrass varieties which are well-adapted for growth, performance, and overall quality in various environments. Cooperators from around the country grow these varieties over a number of years to determine growth characteristics. Data from all areas of the country are compiled and summarized. Turf managers may use this data to choose varieties which are apt to perform well under their particular conditions. The 1983 Tall Fescue Variety Trial, which tested 30 varieties, was completed recently and a summary of results was published in the July 1989 issue of Grounds Maintenance magazine.

The 1987 Tall Fescue Trial contains 61 varieties. Approximately one-half of these varieties are commercially available, while the remainder are experimental lines. Some of the varieties in this test were also grown in the 1983 test. Plots measured 4'x 6' and were seeded at 4.5 lbs/1000 sq. ft. on April 24, 1988. There were three replications of each variety. Phosphorus and potassium fertilizers were applied according to soil test results. Plots received 3 lb. N/1000 sq. ft. per year as urea. Weeds were controlled by spot treatment as necessary, and irrigation was applied to prevent moisture stress. The turf was mowed at a height of 1.75". Visual ratings of leaf texture were made on 6/24/88. Visual ratings of overall turf quality were made on 8/4/88, 9/6/88, 10/29/88, 5/15/89, 6/13/89, and 7/11/89. For 1988, the average of the three quality ratings is presented (Table 1). Because 1988 was an establishment year, ratings of turfgrass quality may not be truly indicative.

The data is presented ranked in order of overall turfgrass quality over the 1989 growing season (last column). A least significant difference (LSD) test was used to determine statistically significant differences between varieties. Pick 127 (an experimental type) had the highest mean quality rating for 1989, but was not significantly better than any of the next 15 entries in the table (through KWS-DUR). From this list, Pick 127, Hubbard 87, Pick DM, Tribute, and PST-5AG were also top performers in 1988. Varieties not in this group of 16 for 1989 but which performed well in 1988 included Jaguar II, PST-5MW, Pick GH6, Bonanza, Rebel II, Monarch, and PST-5HF. Considering quality data for both years, commercially marketed varieties which performed well overall were Jaguar II, Tribute, Rebel II, Trailblazer, Cimmaron, Legend, Monarch, Bonanza, and Wrangler. Marketed varieties observed to have the finest leaf texture were Trailblazer, Trident, Aztec, Carefree, Apache, Finelawn 5GL, Jaguar II, Wrangler, Willamette, Sundance, Taurus, and Rebel II.

Tall fescue has not been widely recommended or utilized in Michigan as of yet. This is mostly due to the fact that it has not been studied closely enough under different conditions to determine its potential. Tall fescue can produce a quality turf. It is probably best suited for "medium maintenance" areas, including non-irrigated sites and open areas not subject to relief from sun and heat. In addition, tall fescues have very good shade tolerance perhaps equal to the fine fescues. Data on cold hardiness in this area is needed, but fine-textured soils which tend to hold water might subject this species to greater winter-kill potential. More work on tall fescue in the future will help to answer these and many other current questions.

TABLE 1. 1987 Tall Fescue Variety Trial

Variety	Leaf Texture (1-9, 9=finest)	Quality Ratings (1-9, 9=Ideal Turf)				
		1988	1989			Mean
		Mean	5/15	6/13	7/11	
Pick 127	5.0	6.7	6.0	6.8	6.7	6.5
Hubbard 87	5.7	7.1	6.3	6.5	6.2	6.3
Pick DM	5.3	6.9	6.0	6.5	6.3	6.3
PST-5D1	5.7	6.3	5.7	6.5	6.3	6.2
Legend	5.8	6.4	6.0	6.0	6.5	6.2
Cimmaron	5.8	6.4	6.3	6.2	6.0	6.2
Aztec	6.5	6.2	5.5	6.3	6.5	6.1
Pick TF9	5.8	6.4	6.0	6.2	6.2	6.1
Bel 86-2	6.3	5.8	6.0	6.2	6.2	6.1
Normarc 99	6.0	6.1	6.2	6.7	5.5	6.1
Trailblazer	7.0	6.6	6.2	6.0	6.0	6.1
Tribute	5.8	6.8	6.2	5.8	6.2	6.1
PST-5AG	6.0	6.7	5.7	6.0	6.5	6.1
Pick SLD	6.7	6.1	5.8	6.2	6.2	6.1
Pick DDF	5.7	6.4	6.0	6.2	6.0	6.1
KWS-DUR	6.5	6.3	5.5	6.7	6.3	6.0
Jaguar II	6.0	7.4	5.8	6.0	6.0	5.9
PST-5MW	5.7	6.7	5.5	6.0	6.3	5.9
PE-7	6.3	5.8	5.7	6.2	6.0	5.9
Pick GH6	5.2	6.7	5.8	6.0	6.0	5.9
Taurus	6.0	6.3	5.5	6.0	6.3	5.9
PST-5FN	6.3	6.1	6.0	6.2	5.7	5.9
Wrangler	6.0	6.5	5.3	6.2	6.3	5.9
PST-5AP	5.0	6.6	5.8	6.2	5.7	5.9
Titan	5.3	6.1	5.8	6.0	5.8	5.9
Sundance	6.0	6.2	5.8	5.7	6.2	5.9
Bonanza	5.3	6.7	5.8	5.8	6.0	5.9
Syn Ga	5.3	5.5	5.7	5.8	6.0	5.8
Bel 86-1	5.3	6.0	5.5	6.0	6.0	5.8
PST-50L	5.3	6.4	5.7	5.7	6.0	5.8
Normarc 77	5.0	6.0	5.5	5.8	6.0	5.8
Rebel II	6.0	6.9	5.7	5.7	6.0	5.8
Pick 845PN	6.2	6.0	5.5	6.0	5.8	5.8
Olympic	4.7	6.2	5.3	5.7	6.2	5.7
Mesa	5.0	6.4	5.8	5.2	5.7	5.7
Trident	6.8	6.2	6.0	5.5	5.7	5.7
PST-5DM	6.2	5.8	5.2	6.0	6.0	5.7
Rebel	4.7	6.5	5.7	5.7	5.8	5.7
Monarch	5.7	6.9	5.8	5.7	5.5	5.7
Carefree	6.3	6.1	5.7	5.7	5.7	5.7
PST-5EN	6.0	6.0	5.2	5.7	6.2	5.7
Chieftan	5.7	6.2	5.8	5.5	5.7	5.7
Willamette	6.0	5.8	6.0	5.0	6.0	5.7
PST-5HF	5.0	7.1	5.5	5.3	6.2	5.7
Finelawn 5GL	6.0	5.9	5.2	5.7	6.0	5.6
Thoroughbred	5.8	6.5	5.7	5.3	5.8	5.6
PST-DBL	5.0	6.4	5.3	5.2	6.3	5.6
Apache	6.3	6.8	5.6	5.7	5.7	5.6

TABLE 1. (continued). 1987 Tall Fescue Variety Trial

Variety	Leaf Texture (1-9, 9=finest)	Quality Ratings (1-9, 9=Ideal Turf)				
		1988	1989			Mean
		Mean	5/15	6/13	7/11	
JB-2	5.5	6.1	5.2	5.3	6.0	5.5
Jaguar	4.9	5.7	5.5	5.5	5.5	5.5
Fatima	5.5	5.5	5.0	5.5	6.0	5.5
Finelawn I	5.0	6.1	5.1	5.0	6.2	5.4
Falcon	5.0	6.7	5.3	5.2	5.7	5.4
PST-5BL	6.7	6.2	4.7	5.8	5.7	5.4
Tip	4.7	6.1	5.0	5.3	5.7	5.3
Richmond	4.7	6.2	5.3	5.0	5.7	5.3
PST-5D7	7.1	5.8	4.8	5.7	5.3	5.3
Pacer	5.8	6.1	5.3	5.0	5.3	5.2
Adventure	5.7	6.2	5.0	5.0	5.5	5.2
Arid	5.8	6.3	4.7	5.2	5.3	5.1
KY-31	5.3	5.2	4.7	5.0	5.2	4.9
LSD (P=0.05)	1.1	0.8	0.8	0.7	0.8	0.5

To determine statistical difference among entries, subtract one entry's rating from another entry's rating in the same column. If the resulting number is greater than the LSD at the bottom of the column, the ratings are significantly different.