Turf-type Tall Fescue Variety Performance for Golf Roughs or Lawns

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Goal: Evaluate tall fescue variety performance under conditions favorable for brown patch.

Location: Lawn with southeast exposure and limited wind movement adjacent to Golf House building – Lemont, Illinois

Background: Tall fescue (*Festuca arundinacea*) is an underused shade- and drought-tolerant cool-season turfgrass in Chicago. Today, tall fescue is beginning to gain popularity amongst Chicago golf course superintendents. Previously tall fescue use was limited in Chicago due to concerns regarding winter hardiness, potential for ice injury, and disease resistance. These perceptions led many to believe this grass wouldn't tolerate cold winters and that it was "still for the cows" with a coarseness in leaf texture that should be left for the pasture. Today, it is quite the contrary and through many years of breeding, vast improvements have been made for the specific use of "turf-type tall fescues" in home lawns and golf course roughs alike. As superintendents look to reduce maintenance inputs, it is an excellent candidate for high stress areas, like steep banks around bunkers or other high wear traffic areas. Additionally, tall fescue has a place in inner rough areas that present both shade and drought stress. Tall fescue also has good genetic resistance to many turfgrass diseases such as dollar spot (*Sclerotinia homoeocarpa*). However, it is susceptible to one of the greatest summertime concerns, a disease called brown patch (*Rhizoctonia solani*), and so variety trials remain important.

Brief Material and Methods: A total of 58 varieties were seeded in 4 ft. x 4 ft. plots on 22 May, 2009. The study is a randomized complete block design with 3 replications. The trial's proximity near a building reduces air movement and was selected to favor disease development. Hand seeding took place at a rate of 8 lbs per 1000 ft^2. Plots were managed at a height of 2.5 inches and irrigated as needed. In 2011, monthly data included; green-up, visual quality (1-9 scale with 9=best and 6= acceptable), and brown patch percent.

Table 1. Commercial tall fescue varieties tested for lawn/rough use in Lemont, IL.

Entry number	Variety name	Commercial source	Entry number	Variety name	Commercial source
1	Jamboree	DLF	30	Shenandoah Elite	ProSeeds Marketing
2	Banshee	DLF	31	Shenandoah III	ProSeeds Marketing
3	Essential	DLF	32	Finelawn Express	ProSeeds Marketing
4	Aggressor	DLF	33	Falcon IV	ProSeeds Marketing
5	Rocket	DLF	34	AST7001	Allied Seed
6	Fat Cat	DLF	35	AST7002	Allied Seed
7	Talladega	Columbia Seeds	36	AST7003	Allied Seed
8	Darlington	Columbia Seeds	37	AST1	Allied Seed
9	Toccoa	Columbia Seeds	38	AST2	Allied Seed
10	Tahoe II	Columbia Seeds	39	AST3	Allied Seed
11	Lexington	Columbia Seeds	40	AST4	Allied Seed
12	Sitka	Columbia Seeds	41	Arid 3	Jacklin Seed
13	PST – 5FDR	Pure Seed Testing	42	Quest	Jacklin Seed
14	PST – 5BGR	Pure Seed Testing	43	Jaguar 3	Jacklin Seed
15	PST – 5SXR	Pure Seed Testing	44	Inferno	Jacklin Seed
16	PST – 5JAG	Pure Seed Testing	45	Jaguar 4G	Jacklin Seed
17	Dynamic II	PST/Scotts/Turf Seed	46	SR 8600	Seed Research/Pickseed
18	Gazelle II	PST/Scotts/Turf Seed	47	SR 8650	Seed Research/Pickseed
19	Endeavor II	PST/Scotts/Turf Seed	48	Speedway	Seed Research/Pickseed
20	Tar Heel II	PST/Scotts/Turf Seed	49	Blackwatch	Seed Research/Pickseed
21	Coronado TDH	PST/Scotts/Turf Seed	50	Guardian 21	Seed Research/Pickseed
22	Matador GT	PST/Scotts/Turf Seed	51	SR 8550	Seed Research/Pickseed
23	Innovator	PST/Scotts/Turf Seed	52	Grande II	Seed Research/Pickseed
24	Wolfpack II	PST/Scotts/Turf Seed	53	Regiment II	Seed Research/Pickseed
25	3rd Millinium	Turf Merchants	54	Tulsa Time	Seed Research/Pickseed
26	Traverse SRP	Turf Merchants	55	Southeast	University of Georgia
27	Firenza	Turf Merchants	56	Bulldog 51	University of Georgia
28	Rhambler SRP	Turf Merchants	57	SIU-5	Southern IL University
29	Falcon V	ProSeeds Marketing	58	K-31	

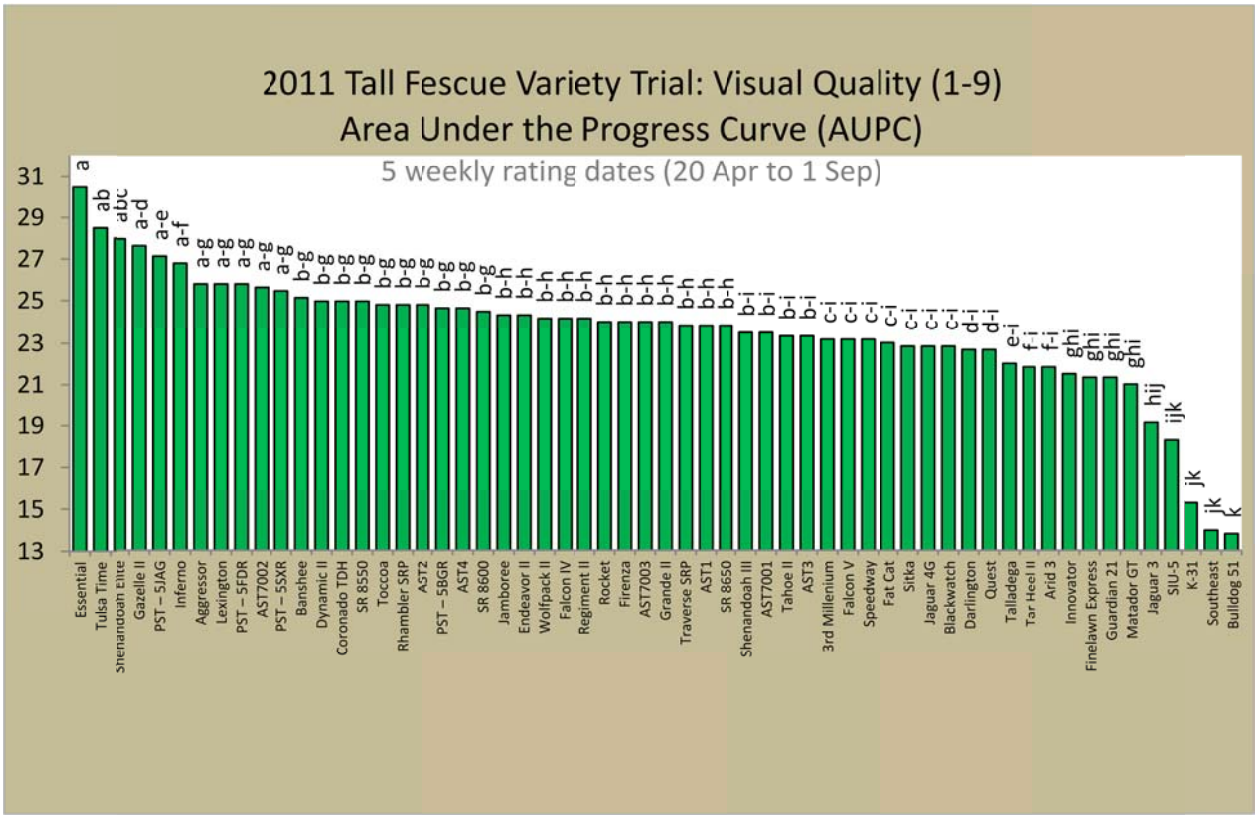

Figure 1. Visual Quality. Best varieties were Essential, Tulsa Time, Shenandoah Elite, Gazelle II, PST-5JAG, Inferno, Aggressor, Lexington, PST-5FDR, AST7002, and PST-5SXR. These best performers had good levels of brown patch resistance. Varieties with poor quality had coarse texture and lime-green color and included K-31, Southeast, and Bulldog 51. K-31 is the older standard pasture type. Both Southeast and Bulldog 51 are UGA varieties selected for salt tolerance. SIU-5 did not have good resistance to brown patch. Tall fescue variety trial, Sunshine Course, Lemont, IL in 2011.

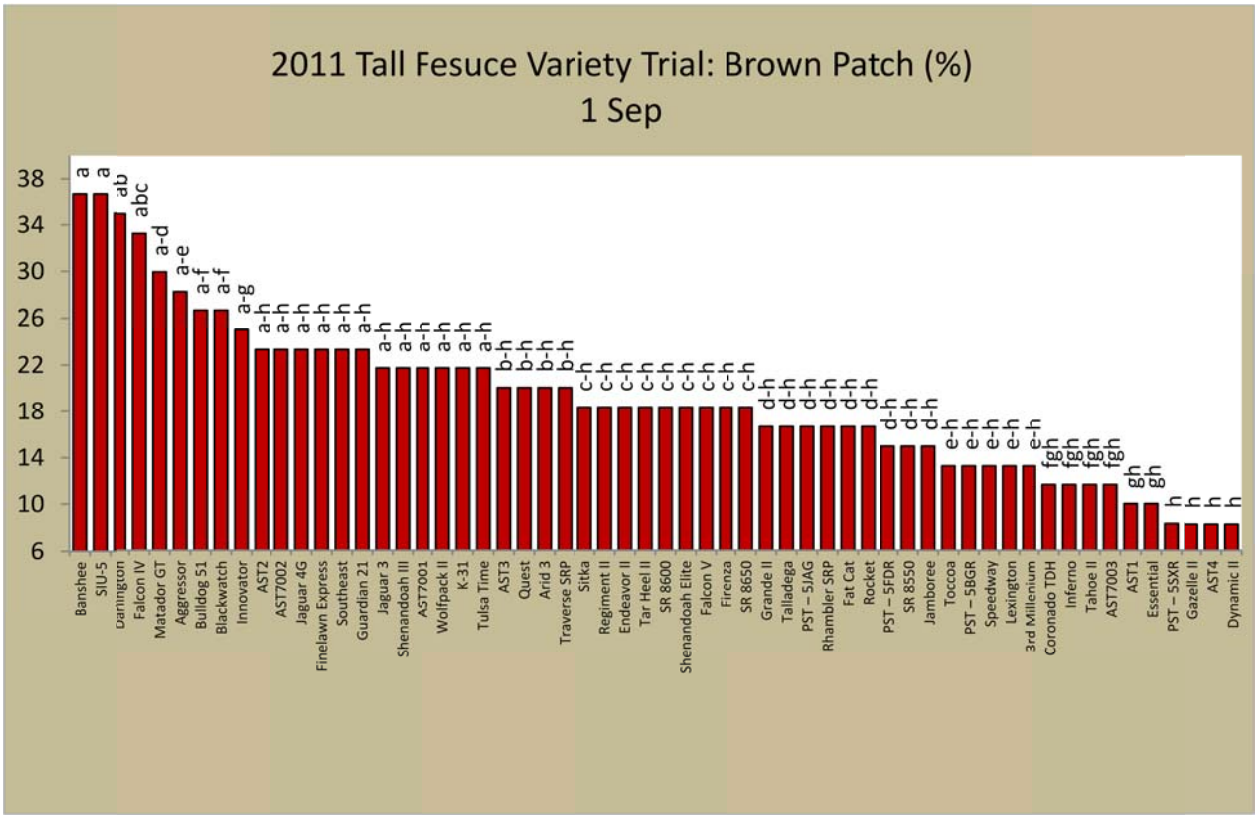

Figure 2. Brown patch. Most susceptible were Banshee and SIU-5. Those that tended to be most resistant were Dynamic II, AST4, Gazelle II, PST-5SXR. Tall fescue variety trial, Sunshine Course, Lemont, IL in 2011.

Image 1. In early July the main stress that impacted tall fescue varieties was drought. Sunshine Course, Lemont, IL. *Settle 7-8-11*

Image 2. Compared to newer turf-types, varieties like K-31 represent visually objectionable older types of course-texture and lime-green color. Sunshine Course, Lemont, IL. *Settle 8-17-11*

Image 3. In September signs of brown patch development, such as lesions on leaf blades of tall fescue plants, could be found. Sunshine Course, Lemont, IL. *Settle 9-1-11*