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Selecting Turfgrasses For Idaho Lawns

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Selecting a turfgrass variety (cultivar) adapted to the environmental conditions in your area will help you establish a beautiful and durable lawn. A well-planned and maintained lawn intensifies the landscape, provides an area suitable for outdoor recreation and relaxation and increases the value of the average home.

Cultivar Testing

The University of Idaho has been evaluating turfgrass cultivars to determine their adaptability and turf quality under Idaho conditions. Since 1973 at Moscow, 111 different cultivars have been evaluated for color, texture, disease resistance and overall quality. The test included 65 Kentucky bluegrasses

(*Poa pratensis* L.), 20 fine leaf fescues (*Festuca* spp.), 13 perennial ryegrasses (*Lolium perenne* L.) and one zoysia (*Zoysia matrella*). Twenty turf varieties have been evaluated at the Southwestern Idaho Research and Extension Center near Parma. This test included 15 Kentucky bluegrasses, two fine leaf fescues, one perennial rye, one Kentucky bluegrass-fescue mix and one fescue blend. Table 1 summarizes both tests.

All cultivars have been tested under uniform growing conditions. The Moscow plots are located on a heavy silt loam soil, and the turf gets supplemental irrigation during dry periods from June through September. The Parma plots are located on a light silt loam soil with a relatively high soil pH.

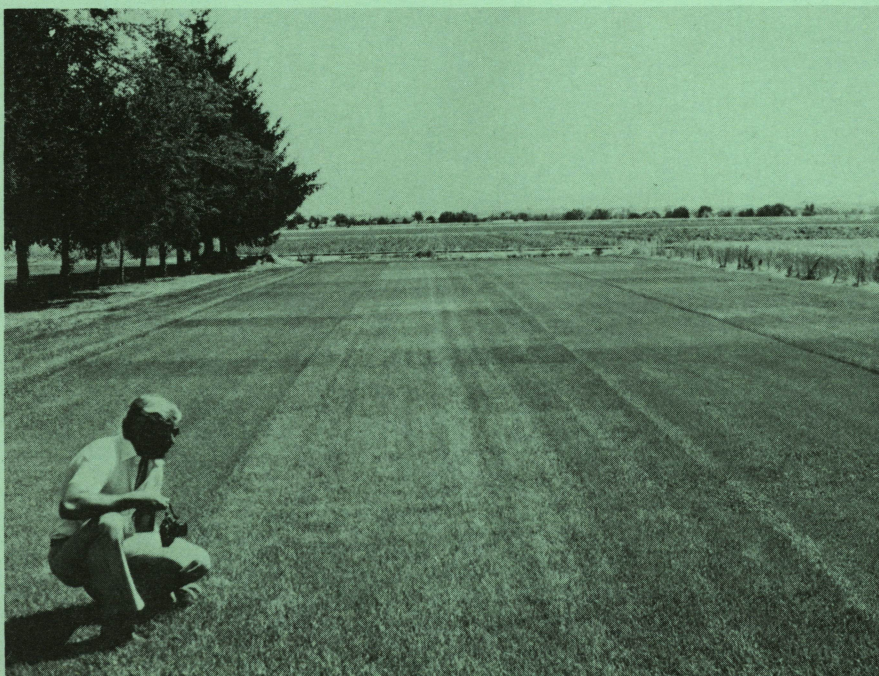


Fig. 1. Turfgrass variety plots at the Southwest Idaho Research and Extension Center near Parma.

Table 1. Turfgrass evaluations in Idaho, 1972-80.

Variety	Early spring color	Seasonal color	Late fall color	Texture 2" mowing height	Disease evaluation			Overall quality rating
					Leaf spot	Rust	Snow mold	
Kentucky bluegrass								
Adelphi	G	G	G	M	S	NA	NA	G
Arboretum	A	A	A	F	NA	R	NA	A
Ardita	A	A	A	M	NA	S	NA	A
Aquilla	A	A	A	F	NA	NA	NA	A
Baron	A	E	E	M	R	S	NA	E
Birka	A	E	A	M	R	NA	NA	A
Bristol	A	G	G	M	S	R	NA	G
Bonnieblue	G	G	A	M	R	R	NA	A
Cheri	A	A	A	M	NA	NA	NA	A
Continental	A	G	A	F	R	R	NA	G
Cougar	P	A	A	F	R	S	NA	A
Delta	E	A	A	F	R	R	NA	A
Fanfare	A	A	A	M	R	S	NA	A
Galaxy	A	E	G	F	S	R	NA	A
Garfield	E	A	A	F	NA	R	NA	A
Glade	A	E	G	F	R	S	NA	E
Merion	A	A	A	F	R	S	NA	G
Merit	A	E	A	F	R	NA	NA	A
Majestic	A	A	A	NA	R	NA	NA	A
Newport	A	A	A	F	R	NA	NA	A
Nugget	P	G	A	F	R	S	NA	G
Park	E	A	A	F	R	R	NA	A
Pennstar	A	A	E	F	R	NA	NA	A
Plush	P	A	A	M	R	S	NA	G
Ram I	G	E	E	C	NA	NA	NA	E
Rugby	A	A	A	M	R	R	NA	G
Sodco	A	A	A	M	NA	S	NA	A
Sydsport	G	A	A	C	NA	NA	NA	A
Touchdown	G	G	A	F	NA	S	NA	G
Victa	A	E	A	M	NA	NA	NA	G
Warrens A-34	A	A	A	C	NA	R	NA	A
Belturf	A	E	A	F	S	NA	NA	G
Ida Sel 21	A	A	A	F	NA	NA	NA	A
Ida Sel 23	A	A	A	M	R	S	NA	A
Argyle	A	A	A	F	NA	NA	NA	A
Fine Leaf Fescue								
Aberystwyth 559	E	A	A	F	S	NA	NA	G
Atlanta	A	A	E	F	NA	NA	NA	A
Banner	A	A	A	F	NA	NA	NA	A

The turfgrasses are fertilized with 6 pounds of actual nitrogen per 1,000 square feet annually, applied at 1 pound per growing month.

Color and Texture

Although personal preferences may differ, most homeowners seem to want their lawns to be a dark-green color. The cultivars were rated for this color during three periods of the year:

- early spring to determine how fast the turf regained good color;

- the optimum growing season from April to September;
- late fall after several frosts to determine how late in the season that good, green color was maintained.

Turfgrass texture is determined by the width of individual leaves. A medium to fine texture, ranging from 1.5 to 3 mm, is generally preferred for most turf purposes.¹ Turfgrass texture varies among cul-

¹J. B. Beard. 1973. Turfgrass science and culture. Englewood Cliffs, N.J.: Prentice Hall, Inc.

Table 1. Cont'd.

Variety	Early spring color	Seasonal color	Late fall color	Texture 2" mowing height	Disease evaluation			Overall quality rating
					Leaf spot	Rust	Snow mold	
Fine Leaf Fescue (cont'd.)								
Barfalla	E	A	A	F	S	NA	NA	A
Biljart	A	E	G	F	NA	NA	S	E
Dawson	A	A	G	F	NA	NA	NA	A
Fortress	A	A	A	M	NA	NA	S	A
Halifax	A	G	G	F	NA	NA	NA	E
Jamestown	A	A	G	F	S	NA	NA	A
Kensington	A	A	G	F	NA	NA	S	G
Koket	G	A	A	F	S	NA	S	A
Pennlawn	A	A	A	F	S	NA	NA	A
Scarlet	A	A	G	F	NA	NA	NA	G
Wintergreen	A	A	G	M	NA	NA	S	A
Perennial Ryegrass								
Citation	A	G	G	F	NA	R	S	E
Derby	A	A	G	F	NA	R	S	A
Diplomat	A	A	A	F	S	R	S	A
Loretta	A	A	A	F	NA	R	S	G
Manhattan	A	G	A	M	NA	R	S	A
Norlea	A	G	A	F	S	R	R	A
Omega	A	A	A	F	NA	R	R	A
Pennfine	A	G	A	NA	NA	R	S	A
Servo	A	A	A	F	S	R	R	A
Yorktown II	G	A	G	F	NA	R	S	G
Zoysia								
Meyer Zoysia	P	A	P	M-C	R	R	R	P
Cultivar Blends or Mixes								
¼ Sydsport Kentucky bluegrass,	A	A	A	M	NA	NA	NA	A
¼ Baron Kentucky bluegrass,								
¼ Garfield Kentucky bluegrass and								
¼ Fine leaf fescue								
½ Tall fescue and	A	A	A	C	NA	NA	NA	P
½ Fine leaf fescue								

E = excellent
G = good
A = average
P = poor

F = fine
M = medium
C = coarse

R = resistant
S = susceptible
NA = not available

tivars within one species and between species. In general, fine leaf fescues are less than 1 mm in leaf width, zoysiagrass and Kentucky bluegrass range from 2 to 3 mm and perennial ryegrasses are from 3 to 4 mm in width.

Mowing height affects texture. For most home lawns, a 2-inch mowing height is preferable over higher or lower cutting levels for bluegrass, fescue and perennial ryegrass. An increased mowing height can make turfgrasses more susceptible to the snow mold fungi. This is especially true with perennial ryegrass and fine leaf fescue.

Disease Resistance

Disease resistance or tolerance of a single cultivar to a turf disease is an important characteristic you need to consider in selecting a variety. Under some situations, a disease may weaken or suddenly kill a susceptible variety. In contrast, a cultivar with resistance or tolerance to the same disease will continue to function as good lawn cover. In this test, susceptibilities to leaf spot (*Helminthosporium* spp.), rusts (*Puccinia* spp.) and snow molds (*Fusarium nivale* Fr. and *Typhula incarnata*) were evaluated.

Overall quality of a turf cultivar combines the components listed. A cultivar with good color but poor disease resistance could be rated down in overall performance.

Quality Seed

High quality, pure turfgrass seed is a good investment. The purchase of certified seed guarantees that the seed was grown and tested under conditions to insure germination, purity, variety and freedom from weeds and unwanted grasses. Adequate quantities of many high quality grasses for Idaho are available through garden centers within the state.

Testing in Idaho shows that grass seed which is a blend of cultivars of the same species or a mix of cultivars of different species does not produce turf superior to the best individual component. A common turfgrass mix is Kentucky bluegrass and a fine leaf fescue. Such a mix may be desirable for a shaded turfgrass area where the fine leaf fescues grow well. Perennial ryegrasses are frequently mixed with Kentucky bluegrasses primarily because the ryegrass has a faster germination and green-up than Kentucky bluegrass.

Mixing or blending is not recommended for Idaho lawns unless there is assurance that the mixes or blends will be superior to the single best cultivar. Furthermore, a **certified** blend or mix is not available.

For additional information on establishing and maintaining turfgrass, see University of Idaho Agricultural Experiment Station Bulletin 565, *Establishing and Maintaining Idaho Lawns*. Copies are available from county offices of the University of Idaho Cooperative Extension Service and in some garden centers.

Conclusions

Results from these evaluations could help you in your selection of a superior turf cultivar for Idaho's conditions. The Kentucky bluegrasses which performed best for 6 years are Baron, Glade and Ram I. Also recommended for planting are Adelphi, Birka, Bristol, Continental, Merion, Nugget, Rugby, Victa and Belturf.

The perennial ryegrass cultivars which performed well are Citation, Loretta and Yorktown II. The "Meyer" zoysiagrass proved to be a very poor choice for lawn planting in this region because of its slow growth, poor color and overall reduced quality.

The Authors

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