

Gremlin

TALL FESCUE

BREEDER

NJAES/Rutgers University

DESCRIPTION

Gremlin is an improved heat and disease resistant "Double Dwarf" tall fescue variety developed for superior turf quality across a wide area of adaptation. Gremlin receives top ratings for turf quality and brown patch resistance but most importantly provides reduced vertical growth which results in less vegetative clippings to the lawn care professional. We have engineered other desirable qualities in Gremlin including fast germination, quick fill, and the ability to thrive in full sun or partial shade.

APPLICATION

Gremlin is recommended for permanent turf in full sun or partial shade, on home lawns, commercial sites, parks and golf course roughs. It was developed for the discriminating superintendent, landscaper and sports turf manager in a range of environments. Gremlin can be utilized from the dry temperate climates of the intermountain West to hot and humid regions of the Southeastern U.S. with excellent results. Gremlin is best utilized in grass seed mixtures maintained at a high height of cut with Kentucky bluegrass, perennial ryegrass, hard fescue, sheep fescue or strong creeping red fescue.

PERFORMANCE

Gremlin was recently tested in the 2001 NTEP Test with 158 entries across 31 U.S. and Canadian locations. Gremlin tied for the shortest vertical growth and tied for 1st in winter color ratings in 2002. The "double dwarf" growth habit of Gremlin results in

less mowing and reduced clipping potential. Good winter color in tall fescue is highly correlated with improved winter brown blight resistance and enhanced winter grassy and broadleaf weed suppression. Gremlin exhibits improved resistance to brown patch, leaf spot, pythium blight and winter net blotch.

SEEDING

Dates: Spring and fall when soil temperatures are 60°F or higher. Turf type tall fescue is generally slow to tiller once germinated so higher soil temperatures and increasing photoperiod in spring or warm soils with decreasing photoperiod in the fall provide an optimal environment for seedling establishment.

Rates: 6-8 lb./1,000 ft.sq. on new seeding and 2-3 lb./1,000 ft.sq. on established turf. Seed count of Gremlin is 225,000 seeds per pound and is dependent on the year of harvest, location of production and seed production practices.

Depth: Sow at ¼ to ½ inch. Slice seeding of existing turf may require lowered mowing height or growth regulator to reduce canopy height of existing turf. This management practice enhances establishment of newly emerging tall fescues seedlings.

CULTURAL PRACTICES

Soil preparation: Prepare firm seed bed free of clods, sticks and vegetative debris. Seed should be in contact with the soil. Tall fescues are best established in well drained soils, but will tolerate heavy soil conditions better than many other cool-season grasses.

pH: Soil is best maintained at a neutral pH of 7.0. However, Gremlin is adapted to a range of soil pH conditions and will

TURF CHARACTERISTICS

Growth Habit	Estab. Rate days	LHC Tol. ½"	Mowing Freq.	Traffic Tol.	Thatch prod	Comp Mix	N. Req.	Shade Tol.	Cold Tol.	Drought Tol.	Et rate mm/day	Endophyte	Salinity Tol. mmhos
Bunch	Med. 14-21	Poor	2x Week	Very Good	Low-Med	Fair Good	Med 6 lbs*	Very Good	Very Good	Excell.	Very High >10%	Yes >92%	11 good

*LHC=low height of cut, ET=evapotranspiration, N=nitrogen *per 1,000 ft²; rates may increase or decrease based on location, soil type, irrigation practices, desired turf quality, humidity & other abiotic and biotic factors.*



perform relatively well in moderately acidic or alkaline soils.

NPK requirements: Gremlin is described as a medium to high user of fertilizer. In Northern regions 4-5 lbs. N/year; in transitional climates 5-7 lbs. N/year. In Southern regions 5-7 lbs. N/year with minimal utilization in summer months to discourage foliar turfgrass diseases such as brown patch. NPK ratios are generally recognized as 5-1-3 with clippings retained on the turf.

Water use: Tall fescue is recognized as a dehydration avoidant species (Beard, 1986) with improved drought tolerance. Tall fescue has an abundant deep and fibrous root mass which mines available subsoil moisture during stress periods. ET rate of >10 mm per day is highest among cool season turfgrass. Infrequent but heavy irrigation to stimulate deep subsoil root growth is recommended.

Thatch management: Requires little thatch management. Only high N levels with minimal traffic pressure encourages thatch accumulation. Verticutting, lower mowing heights and dethatching are recommended for dormant sod or grass breaking dormancy in the spring. At any given dethatching, never remove more than 1/2 inch of thatch layer. If the thatch layer is greater than 1 inch, removal must be done over a period of years.

Mowing height: Gremlin should be mowed at 1.5-3.0 inch

2002 Mean Turfgrass Quality Ratings of Tall Fescue Cultivars grown in 2001 NTEP Tall Fescue Test.	
Bingo	7.1
Atf 702	6.8
Kalahari	6.7
Five Point	6.6
Coyote	6.5
Falcon IV	6.4
Finelawn Elite	6.3
Gremlin	6.2

↑ Top 9 NTEP varieties
↓

Turfgrass Winter Color Rating	
1-9; 9=complete color retention.	
Progress Report NTEP No. 03 LSD=.6	

Weed Control: (From NCSU Pest Control Recommendations for Turfgrass Managers, 2003). In established turf for post-emergent broadleaf control 2, 4-D and *dicamba* (Banvel). Spring pre-emergent control DCPA or *bensulide* (dacthal). Pre-emergent crabgrass and goosegrass control on established tall fescue with *pendimethalin* (Pre-M), *proflaminate* (Barricade), *oxadiazon+benefin*, or *oryzalin* (Surflan), *benefin* (Balan), *siduron* (Tupersan), *dithiopyr* (Dimension).

2002 Mean Turfgrass Canopy Height of Tall Fescue Cultivars grown in 2001 NTEP Tall Fescue Test.	
Pure Gold	2.7
Raptor	3.7
Bonsai	4.0
Gremlin	4.3
Scorpion	4.3
Mustang III	4.7
Plantation	6.0
Finelawn Elite	6.3
Jaguar III	6.7
Masterpiece	7.3
Falcon II	9.0
KY-31 E+	12.7

↑ Shortest Mowing Height
↓ Tallest Mowing Height

Turfgrass Canopy Height Measured in centimeters.
Progress Report NTEP No. 03 LSD @ .05-2.5 cm

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