



Viking is similar in appearance to improved sheep and blue fescues, but has wider, tougher, less glaucous leaves and is more tolerant of higher fertility and moist soil conditions.

Viking exhibits a distinct, deep-dark green, fine textured turf that spreads very slowly with basal tillering. It is also recognized as low maintenance, due in part to its low rate of vertical growth, which requires less frequent mowing than other species.

Data from the 2002 Final Progress Report 03-9 conducted across 28 locations in the US and Canada indicates that **Viking** tied for 1st in turf quality among hard fescue varieties and experimentals.

Viking also exhibits good resistance to dollar spot incited by *Sclerotinia homoeocarpa*, red thread *Laetisaria fuciformi*, moderate resistance to summer patch *Magnaporthe poae*, and brown patch *Rhizoctonia solani*.

- Dark green color
- Bunch-type growth habit with high tillering capacity
- Ideal for wildflower and natural low-maintenance settings
- Extreme tolerance to infertile, droughty soils and environmentally sensitive areas
- Excellent where mowing is discouraged
- Best utilized in poly species turfgrass mixtures for improved shade tolerance, elegant fine textured turf and reduced maintenance in mild temperate and transitional climates
- Compatible with Kentucky bluegrass, perennial ryegrass, colonial bentgrass and other fine fescues

SEEDING RATE:
(new) 4-5 lbs./1000 sq. ft.
(established) 3-4 lbs./1000 sq. ft.



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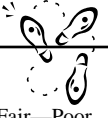






2541 Commerce St
La Crosse WI 54603



DESCRIPTION

Viking is similar in appearance to improved sheep and blue fescues, but has wider, tougher, less glaucous leaves and is more tolerant of higher fertility and moist soil conditions. Viking exhibits a distinct, deep-dark green, fine textured turf that spreads very slowly with basal tillering. It is also recognized as low maintenance, due in part to its low rate of vertical growth, which requires less frequent mowing than other species. Once fully established it requires little supplemental irrigation or fertilizer and tolerates acidic, infertile, shady planting sites.

Turf Maintenance Characteristics

Growth Habit	Estab. Rate days	LHC Tol. 1/2"	Mowing Freq.	Traffic Tol.	Thatch Prod.	Comp. Mix	N. Reg.	Shade Tol.	Cold Tol.	Drought Tol.	ET rate mm/day	Endo-phyte	Salinity Tol. mmhos
 Bunch	 Med. 18-21	Poor	 2x Month	 Fair—Poor	Med	Good	 Low 4lb	 Very Good	 Very Good	 Good	 Med 7-8	Yes >76%	 <3 Poor

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

APPLICATION

Viking is best utilized in poly species turfgrass mixtures for improved shade tolerance, elegant fine textured turf and reduced maintenance in mild temperate and transitional climates. Viking is compatible with Kentucky bluegrass, perennial ryegrass, colonial bentgrass and other fine fescues.

PERFORMANCE

Viking was entered in the 1998 Fine Fescue NTEP Test along with 79 other fine fescue and 26 hard fescue varieties and experimentals. Data from the 2002 Final Progress Report 03-9 conducted across 28 locations in the US and Canada shows that Viking tied for 1st place in turf quality among hard fescue varieties and experimentals. Viking also exhibits good resistance to dollar spot incited by *Sclerotinia homoeocarpa*, red thread *Laetisaria fuciformi*, moderate resistance to summer patch *Magnaporthe poae*, and brown patch *Rhizoctonia solani*.

SEEDING

Date: Spring and fall when soil temperatures are 60°F or higher. Hard 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: 4-5 lbs/1000 sq. ft. on new seedings. Seed count of Viking is 565,000 seeds per pound dependent on the year of harvest, location of production and seed production practices.

Depth: Sow at 1/4 to 1/2 inch.

CULTURAL PRACTICES

Soil Preparation: Prepare a firm seed bed free of clods, sticks, and vegetative debris. Seed should be in contact with soil. Hard 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 6.50 or less. However, Viking is adapted to a range of soil pH conditions and will perform relatively well in moderately acidic or alkaline soils.

NPK requirement: Of the cool-season grasses used for turf, fine fescues are more tolerant of infertile, dry soils and often predominate where there is competition from trees and shrubs for nutrients and moisture. For these reasons, fine fescues are an excellent choice for low maintenance turfs. Fine fescues may not perform well during hot, humid summers, particularly if they are over fertilized, grown in poorly drained soils or mowed too closely.

Water Use: Hard fescue is recognized as a dehydration avoidant species (Beard, 1986) with improved drought tolerance. An ET rate of 7—8 mm per day is highest among cool season turfgrass.

Thatch Management: The dense bunch type growth habit of Viking Hard Fescue provides opportunities for development of thatch. Verticutting, lower mowing heights and dethatching are recommended for dormant sod or grass breaking dormancy in the spring. At any give dethatching, never remove more than 1/2 inch of thatch. If the thatch layer is greater than 1 inch, removal must be done over a period of years.

Mowing height: Standard mowing height for Viking is 1.0—2.5". Mowing heights are often dictated by species mixture components. Mixtures containing tall fescue and Kentucky bluegrass would be mowed at the higher range of cutting heights. Mixtures containing perennial ryegrass and colonial bentgrass may be mowed at lower mowing heights.

Weed Control: (From NCSU Pest Control Recommendations for Turfgrass Managers 2003).

For general broadleaf control in established turf: 2,4-D+dicamba, 2, 4-D +MCPP, 2, 4-D+MCPP+dicamba, 2, 4-D+2, 4-DP and others.

Pre-emergent herbicides to control annual grassy weeds in established turf: *benefin* (Bakan), *bensulide* (Pre-Far), *dithiopyr+trifluralin*, *pendimethalin*, (pre-M), *prodiamine* (Barricade).

Post-emergence herbicides for annual grassy weeds *dithiopyr* and *fenoxaprop*. *Sethoxydim* (Poast) and *fluazifop* (Fusilade) are used as broad-spectrum herbicides to control broadleaf and annual grassy weeds in fine fescue seed production fields of Oregon.

*All reference to pesticides, herbicides and fungicides whether a generic or named product is for general informational purposes only. Text reference is not intended as an endorsement nor does omission imply criticism. Always read and follow labeled instructions.



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