



BREEDER

NJAES/Rutgers University

DESCRIPTION

Ambrose is the best performing chewing fescue in North America. It exhibits a distinct deep dark green, fine textured turf. Recognized for its reduced rate of vertical growth and low maintenance attributes Ambrose also exhibits low height of cut tolerance for tightly mowed fairways and winter overseeding of greens. It has good shade tolerance and is adapted to low fertility and moderately high pH soil conditions. Ambrose requires soils with good to excellent internal drainage for optimal turf performance. Ambrose is a moderately endophyte enhanced chewing fescue with >36% *Epichloe typhina* endophyte which provides resistance to a number of leaf and crown feeding insects and nematodes.

APPLICATION

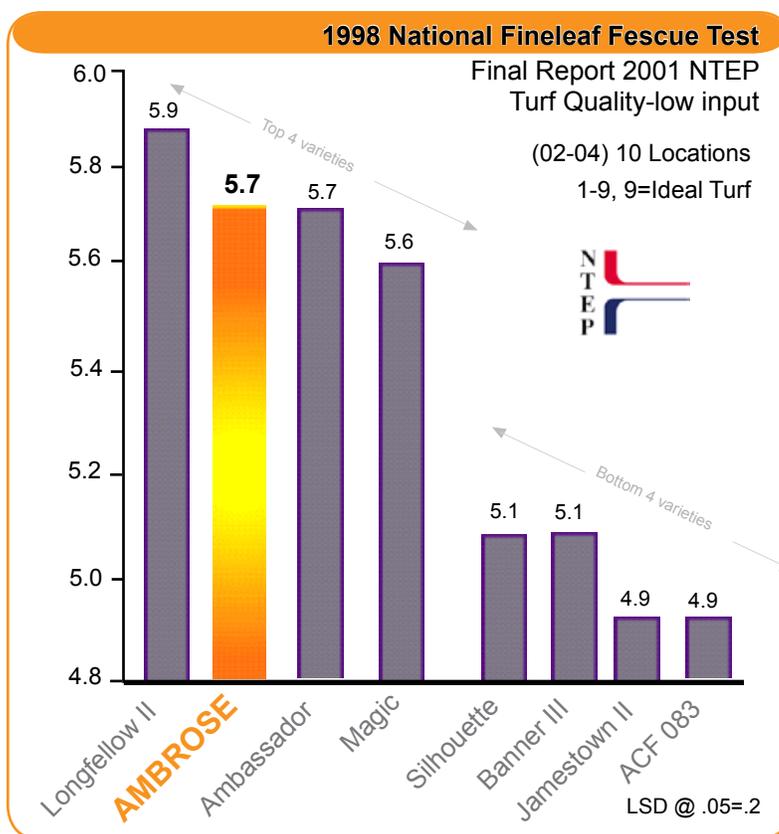
Ambrose is best utilized in poly species turfgrass mixtures for improved shade tolerance, LHC tolerance and reduced maintenance turfgrass in mild temperate climates. Ambrose is compatible with Kentucky bluegrass, perennial ryegrass, colonial bentgrass and other fine fescues. In addition, Ambrose can be utilized in winter overseeding programs as a minor component in elite rapid transition turfgrass mixtures.

PERFORMANCE

Ambrose was entered in the 1998 Fine Fescue NTEP Test along with 79 fine fescue and 23 chewing fescue varieties and experimental varieties. Data from the 2001 Final Progress Report 02-4 conducted across 30 locations in the U.S. and Canada indicates that Ambrose tied for 1st in turf quality among chewing fescue and fine fescue species combined. Ambrose also exhibits good resistance to dollar spot incited by *Sclerotinia homoeocarpa*, red thread *Laetisaria fuciformi*, summer patch *Magnaporthe poae*, and moderate resistance to brown patch *Rhizoctonia solani*.

SEEDING

Dates: Spring and fall when soil temperatures are above 60°F or higher. Fine fescue is generally slow to tiller once germinated, so



TURF CHARACTERISTICS

Growth Habit	Estab. Rate days	LHC Tol. 1/2"	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. 18-21	Very Good	2x Month	Fair	High	Fair-Good	Med 4-6 lbs*	Good	Very Good	Good	Med 7-10	Yes >36%	600

*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.*



higher soil temperatures and increasing photoperiod in the spring or warm soils with decreasing photoperiod in the fall provide an optimal environment for seedling establishment.

Rates: 4.0-5.0 lbs. per 1,000 ft.sq. Seed count of Ambrose is 480,000 seeds per pound and dependent on the year of harvest, location of production and seed production practices.

Depth: Sow at ¼ to ½ inch.

CULTURAL PRACTICES

Soil preparation: Prepare firm seedbed free of clods, sticks and vegetative debris. Seed should be in contact with soil. Fine fescues are intolerant of poorly drained soils.

pH: Should be slightly acidic 6.5 or less for favorable growth.

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: Chewing fescue is recognized as a dehydration resistant and tolerant species (Beard, 1986) with improved drought tolerance. An ET rate of 7-8 mm per day is the best among the cool-season turfgrass species.

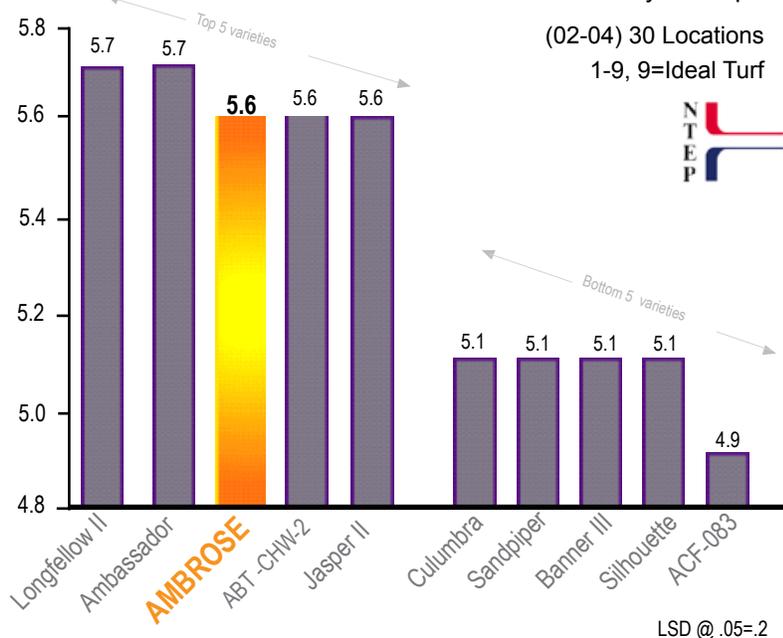
Thatch management: The dense bunch type growth habit of Ambrose chewing fescue provides opportunities for development of thatch. Verticutting, tight mowing and dethatching are recommended for dormant sod or for grass breaking dormancy in the spring. During any dethatching never remove more than ½ inch of thatch. If a thatch layer of greater than one inch exists, removal must be done over a period of years.

Mowing height: Ambrose can be mowed as tight as ½ inch to 9/16 inch on low maintenance golf course fairways to standard mowing heights for fine fescues of 1.0 to 2.5 inch. In winter

1998 National Fineleaf Fescue Test

Final Report 2001 NTEP
Turf Quality-low input

(02-04) 30 Locations
1-9, 9=Ideal Turf



overseeding it can be mowed as low as 125,000" alone or in mixtures containing improved perennial ryegrass, Poa trivialis, creeping, colonial and velvet bentgrass.

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 +MCP, 2, 4-D+MCP+dicamba, 2, 4-D+2, 4-DP and others. Pre-emergent herbicides to control annual grassy weeds in established turf: *benefin* (Balan), *bensulide* (Pre-Far), *dithiopyr+trifluralin*, *pendimethalin* (pre-M), *proflam* (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.

