



Ambrose is the best performing chewings fescue in North America. It exhibits a distinct deep dark green, fine textured turf.

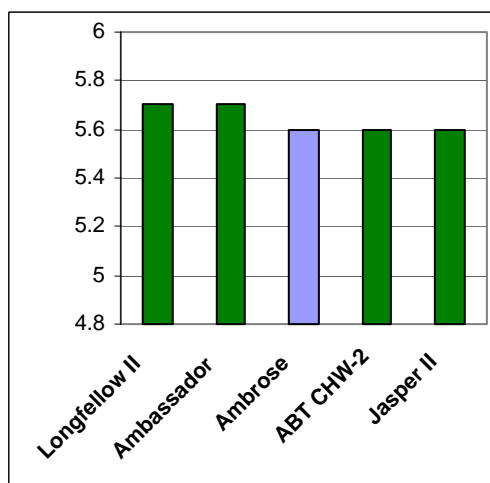
Recognized for its reduced rate of vertical growth and low maintenance attributes, **Ambrose** also exhibits low height of cut tolerance for tightly mowed fairways and winter overseeding of greens. It has good shade tolerance and is adapted to low fertility and moderately high soil pH conditions.

Ambrose requires soils with good to excellent internal drainage for optimal turf performance.

Ambrose is a moderately endophyte enhanced chewings fescue with >36% *Epichloe typhina* endophyte which provides resistance to a number of leaf and crown feeding insects and nematodes. Data from the 2001 Final Progress Report 02-4 conducted across 30 locations in the US and Canada indicates that **Ambrose** tied for 1st in turf quality among chewings fescue and fine fescue species combined.

1998 National Fineleaf Fescue Test

Final Report 2001 NTEP
Turf Quality-low input
(02-4) 30 locations
1-9, 9= Ideal Turf



- Exhibits a distinct deep dark green color
- Adapted to low fertility and moderate to high soil pH conditions
- Strong shade tolerance
- Low vertical growth habit that will tolerate low cutting heights
- Good resistance to dollar spot, red thread, summer patch, and moderate resistance to brown patch
- 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.



2302 SE Creekview #6
Ankeny IA 50021











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DESCRIPTION

Ambrose is the best performing chewings 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 soil pH conditions. Ambrose requires soils with good to excellent internal drainage for optimal turf performance. Ambrose is a moderately endophyte enhanced chewings fescue with >36% *Epichloe typhina* endophyte which provides resistance to a number of leaf and crown feeding insects and nematodes.

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 	Very Good	2x Month 	Good 	High	Fair-Good	Med 2-4lbs* 	Very Good 	Very Good 	Good 	Med 7-8 	Yes >36%	6 Fair 

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

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 chewings fescue varieties and experimentals. Data from the 2001 Final Progress Report 02-4 conducted across 30 locations in the US 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

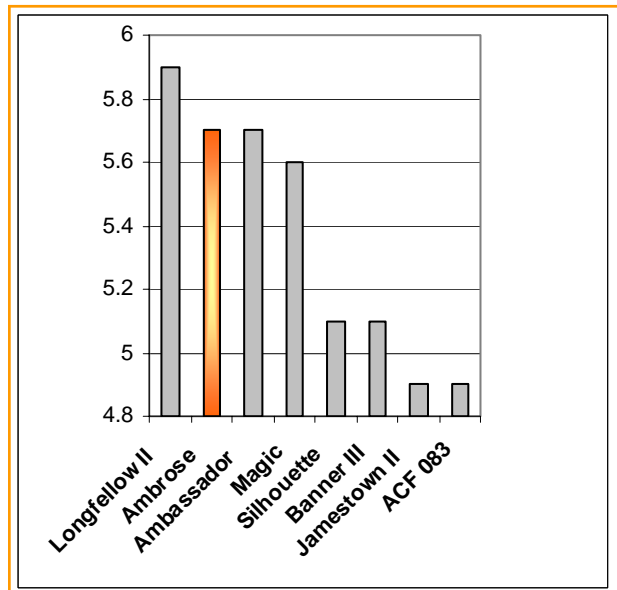
Date: Spring and fall when soil temperatures are 60°F or higher. Fine fescue is generally slow to tiller once germinated so higher soil temperatures and increasing photoperiod in spring or warm soils with decreasing photoperiod in the fall provide an optimal environment for seedling establishment.

Rates: 4-5 lbs/1000 sq. ft. Seed count of Ambrose is 480,000 seeds per pound dependent on the year of harvest, location of production and seed production practices. Sow at 1/4 to 1/2 inch.

1998 National Fineleaf Fescue Test

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1-9, 9= Ideal Turf
LSD @ .05=.2



CULTURAL PRACTICES

Soil Preparation: Prepare a firm seed bed 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: Chewings 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 cool season turfgrass species.

Thatch Management: The dense bunch type growth habit of Ambrose chewings fescue provides opportunities for development of thatch. Verticutting, lower mowing heights and dethatching are recommended for dormant sod or for grass breaking dormancy in the spring. During any 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: Ambrose can be mowed as tight as 1/2—9/16 inch on low maintenance golf course fairways to standard mowing heights for fine fescues of 1.0—2.5 inch. In winter 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* (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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