



Tall Fescue

Lolium arundinaceum (Schreb.) S. J. Darbyshire
Grass family (Poaceae)

NATIVE RANGE

Europe and North Africa

DESCRIPTION

Tall fescue, previously known as *Festuca arundinaceum*, is a cool season, perennial, sod-forming bunchgrass. It is a coarse and long-lived grass, with each bunch having 10 to 30 hollow stems, also known as culms, that are 1 - 6 ft. tall (0.5-2 m). The culms bear a branched flowering structure called a panicle with 5 to 15 flower spikelets that are 1/2 to 3/4 in. (10-19 mm) long, each spikelet containing 3 to 10 florets. The lemmas are about 1/3 in. (7-9 mm) long and have awns that are 1/100 to 2/10 in. (0.3-4 mm) long. The leaf blades are 4 to 24 in. (10-61 cm) long and 0.2 to 4.0 in. (4-10 mm) wide. Mature panicles have a purplish cast which helps to distinguish them from other grasses. The ciliate auricles (earlike structures at the base of the leaf) help to distinguish tall fescue from meadow fescue (*Festuca pratensis*).

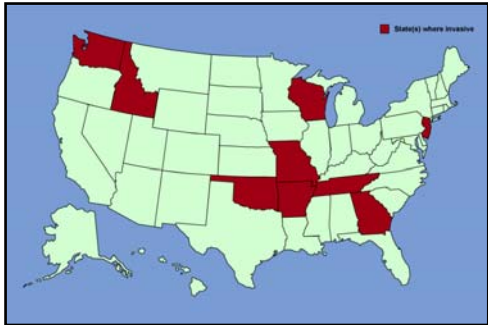


ECOLOGICAL THREAT

Tall fescue invades native grasslands, savannas, woodlands and other high-light natural habitats. In the Midwest, many thousands of acres of native prairie have been seeded with tall fescue for well meaning but misguided conservation purposes. In the Ozarks, woodlands and barrens were converted to tall fescue pasture to enhance grazing income. Some varieties of tall fescue, including Kentucky 31, harbor a mutualistic fungal endophyte (*Neotyphodium coenophialum*) that gives it a competitive advantage over some plants, including legumes. As a result, communities dominated by tall fescue are often low in plant species richness. In addition, alkaloids produced by endophyte-infected tall fescue may be toxic to small mammals and of low palatability to ungulates (such as cattle, deer and elk). Many ground-nesting birds, including Bobwhite quail (*Colinus virginianus*), are unable to use tall fescue fields as foraging or nesting habitat because of a lack of habitat structure and vegetation composition.

DISTRIBUTION IN THE UNITED STATES

Tall fescue occurs throughout the continental U.S. and has been reported to be invasive in natural areas in Arkansas, Georgia, Kansas, Idaho, Iowa, Louisiana, Missouri, Nebraska, New Jersey, Oklahoma, Oregon, Tennessee, Washington, and Wisconsin.



HABITAT IN THE UNITED STATES

The primary habitats for tall fescue are agricultural fields and pastures and former tall-grass prairie. Tall fescue tolerates nutrient poor, compacted, and acidic soils. It also grows well in disturbed and waste areas such as highway and railroad right of ways. However, to maintain optimal grazing conditions, annual nitrogen inputs are needed.

BACKGROUND

Tall fescue was imported to the United States in the late 1800s. Major planting efforts for pasture improvement and erosion control began in the 1940's. In the 1960's, tall fescue was promoted for converting "poor" Ozark woodlands into productive rangeland. The variety K31 is widely used as a turf grass. Tall fescue is still promoted by a variety of agricultural agencies, however, the USDA Forest Service Southern Region recently (2001) prohibited the use of endophytic enhanced tall fescue on Forest Service lands.



BIOLOGY & SPREAD

Tall fescue spreads by vegetative means and by seed. Viable seeds can be dispersed by grazing animals and birds and remain in the seedbank for a long time.

MANAGEMENT OPTIONS

A common goal of management is to restore, to the extent possible, native vegetation on a site. Sites that were planted into crop fields (bare ground) require spring burning and herbicide treatment. It is important to burn fescue after green-up but before it becomes too green to burn. After the fescue has started to regrow and is 4-8 in. (10-20 cm) high, apply 20 gallons/acre (76 l/0.4 ha) of a mixture of 1 quart (0.9 l) glyphosate, 8-12 oz. (237-355 ml) of imazapic, 1 quart (0.9 l) methylated seed oil, and 17 lbs (8 kg) of ammonium sulfate per 100 gals (379 l) of water. In sites where fescue was seeded on native grass, grazing and nitrogen should be withdrawn, and the site burned

the following spring. By discontinuing nitrogen and burning, the fescue is set back. Withdrawing grazing protects the native grasses already present in the field so that they have an opportunity to develop dominance. Other options include burning, plowing, and seeding to an agricultural crop prior to reseeding with native plants.

USE PESTICIDES WISELY: Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact your state department of agriculture for any additional pesticide use requirements, restrictions or recommendations.

NOTICE: mention of pesticide products on this page does not constitute endorsement of any material.

CONTACTS

For more information on the management of tall fescue, please contact:

- Missouri Department of Conservation, www.conservation.state.mo.us
- Native Grass Manager, www.prairiesource.com

SUGGESTED ALTERNATIVE PLANTS

Mixtures of native warm season grasses such as big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*), switchgrass (*Panicum virgatum*), sideoats grama (*Bouteloua curtipendula*), eastern gamagrass (*Tripsacum dactyloides*), and native forbs.

OTHER LINKS

- <http://www.invasive.org/search/action.cfm?q=Lolium%20arundinaceum>

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