

## 'Sherman' BIG BLUEGRASS

**Scientific Name:** *Poa secunda*

**Common Name:** Big bluegrass

**Cultivar Name:** 'Sherman' (PI 421027)

**Selected By:** Pullman PMC, USDA-NRCS

**Release Cooperators:** Washington Idaho and Oregon Agricultural Experiment Station

**Release Date:** 1945

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**ORIGIN:** 'Sherman' was collected from native vegetation near Moro, Sherman County, OR, by D.E. Stephens, superintendent of the Sherman Branch Experiment Station, Moro, in 1932. Recollected by the SCS in 1935.

**DESCRIPTION:** 'Sherman' starts growth very early in spring. It is productive and early maturing. It can measure between 900-965 mm tall, erect growing, and fine stemmed. It is a long-lived perennial bunchgrass; high in seed, forage, and root production. It should have a distinct blue, moderately abundant leaves; large compact seedhead. Plants are apomictic.

**DISEASE AND INSECT PROBLEMS:** Plant is disease resistant, but may be susceptible to leaf rust.

**SEED PRODUCTION:** 'Sherman' seed yields are generally highest the third season; however, with proper management, high yields can be maintained as long as four to six years. It will produce on depleted soils; however, the seed yields will be less than on better, more fertile sites. At Pullman, Sherman big bluegrass has yielded as much as 500 to 800 pounds of clean seed per acre.

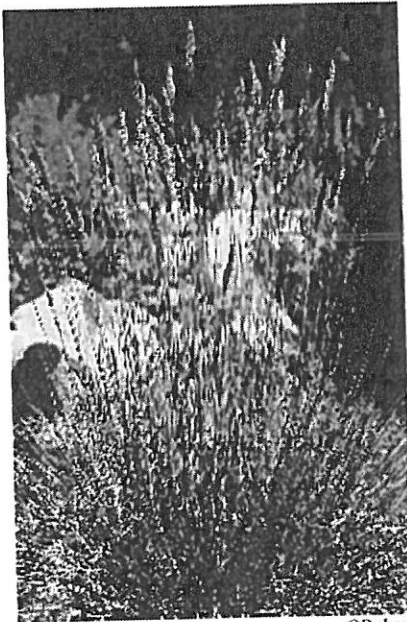
**SEEDING RECOMMENDATIONS:** 'Sherman' requires 5 steps for a successful establishment. 1. A very firm seedbed, free from weeds or other vegetation. In wheat-summer fallow areas and on adjacent rangelands it should be planted on fallow. 2. Seed shallow--not more than 3/4 inch deep. Use depth regulators on the drill. Do not harrow or pack after seeding except following broadcast seeding. 3. Seed in late fall on coarse-textured soils in areas of less than 15 inches of annual rainfall; plant in early spring before wheat seeding begins. 4. Fertilize with 20-40 pounds actual nitrogen per acre when seeding on low fertility sites or depleted cropland. 5. Treat seed with an approved fungicide or seed protectant before planting.

**CONSERVATION USES:** Early spring grazing by cattle or sheep is one of the primary uses of big bluegrass seedings. Upland game birds, especially pheasants, prefer big bluegrass fields for nesting.

## HARD FESCUE

*Festuca trachyphylla* (Hack.)  
Krajina  
Plant Symbol = FETR3

Contributed by: USDA NRCS Plant Materials  
Program



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### Alternate Names

*Festuca brevipila* Tracey

### Uses

**Erosion control:** Hard fescue's primary use has been for soil protection on road sides, ditchbanks, airports, skid trails in the higher rainfall zones, and as a cover crop in irrigated orchards and windbreaks.

### Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

### Description

*Festuca trachyphylla* (Hack.) Krajina, hard fescue, is a medium tall, semi-erect, long-lived, densely tufted bunchgrass. It is a large form of sheep fescue and closely related to Chewings fescue. It has broader, longer, coarser, more lax leaves than sheep fescue. It is more drought tolerant than Chewings fescue but not as hardy as native sheep fescues. It is a heavy root producer. This plus its abundant dense leaves and low crowns makes it an excellent erosion control plant. It is a good seed producer, but seedling vigor is low.

### Adaptation and Distribution

The cultivar 'Durar' is adapted to a wide range of soil conditions in areas of 12 inches or more annual precipitation. Performance is best on well-drained soils. It will not tolerate "wet feet" or saline-alkaline soils, but does well on low fertility sites and in shaded areas. It has not been accepted as a companion grass to alfalfa or clover for hay even though it does not reduce hay yields and its massive root system contributes large quantities of organic matter. The dense mass of relatively tough leaves makes mowing difficult.

Hard fescue is distributed throughout the Northeast. For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

### Establishment

A firm, moist, weed-free seedbed is essential. Good emergence and full stands are dependent upon adequate moisture near the soil surface until the root system is established. The seeds are small and should not be planted more than 1/2 inch deep. Drill 5 to 7 pounds of seed per acre. Drilled seedings have been most successful although broadcast seedings at 10 pounds per acre, harrowed or raked in, have worked well on sites too rough to drill. Spring seedings have been consistently more successful than fall seedings. Seeding should be done as early in the spring as possible on drylands.

### Management

If irrigated, seedings should be watered every 4 to 7 days until plants are well established. Weeds can be controlled by clipping prior to seed set. Once established, hard fescue acts as an effective barrier to weed invasion. Maintain 2 to 4 inches stubble for soil protection.

### **Pests and Potential Problems**

Grubs, leaf spot, dollar spot, summer patch and red thread are potential problems for hard fescue.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

'Durar' (Oregon) was released by the Pullman, Washington Plant Materials Center. Many other cultivars have been released by government agencies and private turf breeding companies. Seeds can be obtained from commercial seed suppliers.

### **Prepared By & Species Coordinator:**

*USDA NRCS Plant Materials Program*

Edited: 05Feb2002 J.L.K., 25may06jsp

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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United States Department of Agriculture  
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# Plant Guide

## SHEEP FESCUE

*Festuca ovina* L.

Plant Symbol = FEOV

Contributed By: USDA, NRCS, Idaho and Washington Plant Materials Staff and the National Plant Data Center

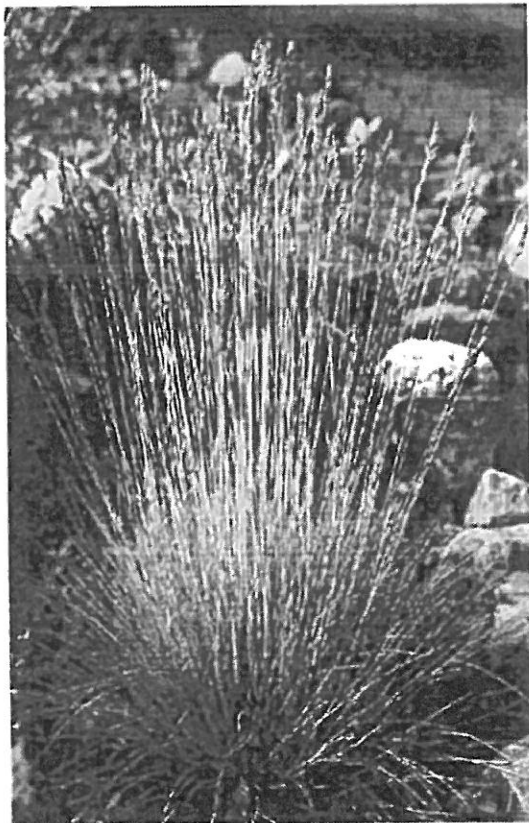


Figure 1. Sheep fescue in xeriscape garden. D. Ogle, NRCS, ID

### Alternate names

Often confused with Idaho fescue in the northwestern U.S. and with Arizona fescue in southwestern U.S.

### Uses

**Grazing/range/pasture:** In rangeland and pastureland plantings, sheep fescue is a competitive understory grass that controls erosion. Although it is sometimes grazed by sheep, it is seldom utilized by cattle or horses and is not considered to be an important forage species.

**Hay:** Due to its short dense tufts, it is not a good species for hay production.

**Wildlife:** Sheep fescue provides very little cover for hiding or nesting habitat.

**Erosion control/reclamation:** The primary use of sheep fescue is ground cover. It is ideal for stabilization of disturbed soils because of its dense root system. Its low growth form and low maintenance requirements make it ideal for ground cover purposes.

It is commonly used to protect roadsides, airport landing strips, industrial and residential areas, ditch and canal banks, skid trails, clear cuts, ski hills, camp sites and other recreation areas from erosion. It provides excellent cover and erosion control in areas between trees rows of shelterbelts, windbreaks and tree farms.

Sheep fescue withstands moderate equipment traffic and requires minimal maintenance. This makes it useful in vineyards, orchards, and farm equipment yards.

Its good drought tolerance combined with strong bunch type root systems and adaptations to a variety of soils make this species ideal for reclamation in areas receiving 12 to 24 inches annual precipitation. This grass can be used in areas where irrigation water is limited to provide ground cover.

**Weed control:** Sheep fescue is an excellent weed control species because it has an extensive and dense bunch type root system. Once a good stand is established, it excludes the invasion of most weeds.

### Status

Consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status such as state noxious status and wetland indicator values.

### Description

**General:** Grass Family (Poaceae). Sheep fescue *Festuca ovina* L. is an extremely variable cool season grass. It is native to Europe, Asia and North America.

In the western United States, sheep fescue is often confused with Arizona fescue in the southwest and Idaho fescue in the northwest. Historically almost all fine leaved, non rhizomatous fescues were identified as *F. ovina*. Many of these specimens have been re-identified as other species (Barkworth 2007). The PLANTS web site indicates *F. ovina* has been mis-applied to specimens of *F. brachyphylla* Schult ex Schult. & Schult *F. ssp brachyphylla* and *F. brevipila* Tracy, (*F. trachyphylla* (Barkworth 2007) ), *F. trachyphylla*, like *F. ovina* is native to Europe while *F. brachyphylla ssp. brachyphylla*

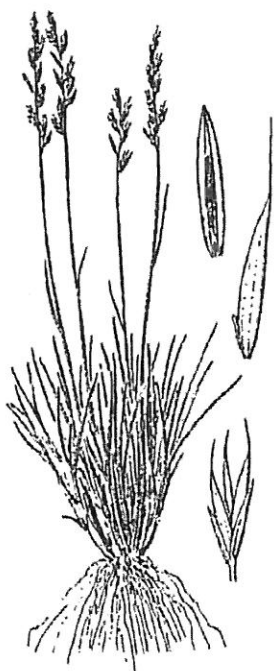


Figure 2. Sheep Fescue Plant Guide. Idaho, 1982.

Sheep fescue is a densely tufted, cool season, dwarf bunchgrass. Its numerous basal leaves are narrow, involute, stiff, semi-erect and short, 4 to 8 in (10 to 20 cm) and less than half the culm length. Plants are short, 12 in (less than 30 cm), with numerous fine stiff to semi erect stems.

The panicle is narrow, dense, nearly spike-like in appearance and protrudes well above the basal leaves on stiff naked culms. They are about 4 in (10 cm) long with 4 to 5 flowers per spikelet. The seed is tipped with 1/8 to 1/4 in (3 to 6 mm) awns. The slightly unequal glumes persist after seed shatter (Cronquist et al., 1977).

#### Distribution

Sheep fescue, *F. ovina*, is a cool season perennial grass native to Europe (Barkworth 2007.) Within North America, sheep fescue can be found in open forests and mountain and foothill slopes from Alaska to North Dakota and south to Arizona and New Mexico. It has also been introduced to many additional locations in eastern North America.

For current distribution, consult the Plant Profile page for this species on the PLANTS Web site.

#### Adaptation

Sheep fescue occupies diverse habitats. Collections show altitudinal variation in habitat extending from 1000 to 13,000 ft (300 to 4,000 m). Although it may be found at any elevation between these extremes, it is most prevalent

from about 3,000 to 8,000 ft (915 to 2440 m). It grows on all exposures in a wide variety of soil conditions. It is best adapted to silt loam or sandy loam soils and is occasionally found on loamy sand soils. It also tolerates shallow, dry, gravelly soils. Common habitats are exposed bench lands, hillsides and ridges, parks, meadows, forestlands, and open ponderosa and lodgepole pine stands. It is also tolerant of weakly saline to alkaline and acidic soil conditions.

It has excellent cold tolerance, good drought tolerance, and moderate shade tolerance. It is more drought tolerant than Idaho fescue and hard fescue. Sheep fescue is best adapted to 12 inch plus precipitation zones. It is fairly tolerant of fire in autumn, but requires 2 to 3 years to fully recover after burning. It is not tolerant of high water tables or flooding. It is often found in association with big bluegrass, mountain brome, bluebunch wheatgrass, slender wheatgrass, geranium, western yarrow, mountain big sagebrush, antelope bitterbrush and ponderosa pine.

#### Establishment

**Planting:** Sheep fescue seed should be planted with a drill to a depth of 1/4 inch or less. The single species seeding rate is 4 pounds Pure Live Seed (PLS) or about 60 PLS per square foot (Ogle et al., 2009). If used as a component of a mix, adjust to percent of mix desired. When broadcast planting seed and for harsh critical planting areas, the seeding rate should be increased to 8 pounds PLS or 120 PLS per square foot. Mulching and irrigation during the establishment year are beneficial for stand establishment.

The best seeding results are obtained from seeding in very early spring on heavy to medium textured soils or in late fall on medium to light textured soils. Late summer (August - mid September) seedings are not recommended unless irrigation is available. Seedling vigor is good; stands are generally slow to develop and seedlings may be very hard to find the establishment year.

It should not be planted with aggressive introduced grasses, but is very compatible with slower developing natives such as bluebunch wheatgrass (*Pseudoroegneria spicata*), thickspike wheatgrass (*Elymus lanceolatus* ssp. *lanceolatus*), streambank wheatgrass (*Elymus lanceolatus* ssp. *psammophilus*), big bluegrass (*Poa secunda*) and needlegrass species (*Achnatherum* spp., *Hesperostipa* spp., *Nassella* spp., *Stipa* spp., and *Ptilagrostis* spp.).

Stands may require weed control measures during establishment, but application of broadleaf herbicides such as 2,4-D should not be made until plants have reached the four to six leaf stage. Mow above seedlings when weeds are beginning to bloom to reduce weed seed production. Grasshoppers and other insects may damage new stands and use of insecticides may be required. Be sure to read and follow label directions.



### Management

Sheep fescue "greens up" in March to early April and matures in late June to mid-July. It is a cool season plant; therefore it produces most of its growth in the spring and again in the fall, if moisture is available. Growth during the summer is minimal and dependant on precipitation or irrigation.

Sheep fescue is a low maintenance plant requiring little additional treatment or care. Its primary pests include grasshoppers. It is resistant to common turf diseases.

### Environmental Concerns

Sheep fescue hybridizes with Idaho and western fescue resulting in somewhat larger plants. It is long-lived, spreads primarily via seed distribution. It is not considered "weedy", but can spread into adjoining vegetative communities under ideal climatic and environmental conditions.

### Seed Production

Seed production of sheep fescue has been very successful under cultivated conditions. Row spacing of 24 to 36 inches are recommended and it should be cultivated and maintained in rows.

Seed fields are generally most productive for four to five years. Average production of 300 pounds per acre can be expected under dryland conditions in 16 inch plus rainfall areas. Average production of 700 pounds per acre can be expected under irrigated conditions. Harvesting is best completed by direct combining or swathing in the hard dough stage, followed by combining of the cured windrows. Sheep fescue averages 680,000 seeds/pound (Smith et al., 1998).

### Cultivars, Improved and Selected Materials (and area of origin)

Foundation and Registered seed is available through the appropriate state Crop Improvement Association or commercial sources to grow certified seed.

'Covar' sheep fescue was released in 1977 by Washington Agricultural Research Center, Washington State University, Agricultural Experiment Stations of Oregon and Idaho in cooperation with the USDA, NRCS, Pullman Plant Materials Center. It originated from Konya, Turkey (Alderson and Sharp, 1994). The name is to identify it as an excellent cover. It is an aggressive competitor that forms an attractive drought tolerant erosion and weed control cover. It is more drought tolerant than other fescues including Idaho, red, western and hard fescue.

'Bighorn' sheep fescue is a PVP turf grass release by Turf-Seed Inc. for improved turf performance, a powder blue color and it has a softer texture. Date of release and nativity is unknown.

'MX-86' sheep fescue is a turf variety developed by Jacklin Seed Company. It was released in 1989. MX-86 is very short and requires very little maintenance. The seed is enhanced with endophyte to improve its insect resistance. Nativity is unknown.

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