



## Tall fescue

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*This Agriculture Note provides information on the utilisation, establishment and management of tall fescue as a pasture plant.*

Tall fescue (*Festuca arundinacea*) is a long-lived perennial grass which is native to Europe, temperate West Asia and North Africa. It occurs in areas receiving at least 450 mm annual rainfall and is limited by severe cold. It is a tufted, coarse-leaved species with erect, unbranched tillers arising from deep underground rhizomes (horizontal stems). Its loose open seed head may be over 300 mm long. Leaves are rolled in the bud and become long flat leaf blades which taper at the end. It is closely related to perennial ryegrass, but is more drought tolerant.

Tall fescue is the best of the temperate perennial grasses for supplying nutritious feed in late spring and early summer. It is particularly suitable as a special purpose pasture to extend the period of quality feed at the end of the growing season. This practice will be especially effective if care is taken to sow the tall fescue pasture on later finishing, low lying areas of the farm.

It is compatible with pasture legumes including white and subterranean clover.

Tall fescue is quite palatable.

In a suitable environment tall fescue will develop a particularly tough sod, resilient to heavy trampling and frequent harvesting.

Tall fescue is the most tolerant perennial grass for flooded and severely waterlogged areas. It is more tolerant of hot conditions than perennial ryegrass. It is tolerant of moderately saline soil.

Tall fescue is adapted to a wide range of soil types (medium to heavy texture), soil fertility and soil pH. It is quite tolerant of soils with a high aluminium content. However, like perennial ryegrass and white clover, it is most productive when soil fertility is high.

Tall fescue infected with endophyte (*Neotyphodium coenophialum*) causes fescue foot in cattle. This is associated with a toxin, ergovaline.

The endophyte is not found in certified seed of cultivars approved for use in Victoria but it is common in some

overseas cultivars. Refer to Agriculture Note *Toxins in endophyte infected perennial grasses*.

In the USA the toxin causes reduced animal growth rates, abortions and deaths to the value of over US\$200 million annually. It is very important to use certified seed of approved cultivars.

**Several turf cultivars of tall fescue contain the endophyte so it would be most dangerous to use them for pasture.**

In Victoria, tall fescue is used in areas receiving at least 600 mm annual rainfall. It is particularly suitable for areas receiving summer rains. It is also particularly suited to rendzinas and peaty soils with high pH where it combines well with strawberry clover.

### Establishment

A finely prepared weed-free seed bed is needed for conventional sowing. Direct-drilling is satisfactory provided weed control is good. At seeding a compound fertiliser containing a small amount of nitrogen fertiliser can often improve the growth of the seedling considerably. Heavier rates of nitrogen fertiliser are sometimes recommended as a means of strengthening the infant tall fescue stand in early spring following an autumn sowing.

To obtain a satisfactory ground cover a high seeding rate of 10 to 20 kg/ha is recommended.

Many paddocks have been sown to a mixture of three to four grasses, with tall fescue included at 1 to 2 kg/ha. The contribution of tall fescue in this situation is usually insignificant.

Tall fescue seedlings grow slowly in the first six months compared with perennial ryegrass and phalaris. Crown development is slow. To obtain a good establishment the inclusion of other grasses in the seed mixture is not recommended.

Low temperatures slow the germination of tall fescue more than other grasses. Thus, in irrigated situations or areas with a long growing season and/or summer rainfall, the reliability of establishment is assured by sowing in spring. Late autumn and winter sowings can be disappointing.

## Management

Grazing hard for short periods in spring is usually important to control weeds and encourage the tillering of newly sown tall fescue and the development of clover species. Grazing needs to be close but carefully monitored for the first two years; adequate spelling after the close grazings is necessary. After two years the established tall fescue plants are usually quite hardy. With the established pasture, close frequent grazing, especially during stem elongation, is desirable in order to maintain high quality.

## Cultivars

### *Demeter*

Suited to areas with a rainfall of at least 600 mm. Grows well in spring. Stays green and responds to summer rains. Poor winter growth. Developed in Australia by CSIRO.

### *AU Triumph*

Alternative to Demeter. Similar requirements and growth pattern. Developed by University of Alabama, Auburn, USA.

### *Fraydo*

Excellent autumn-winter growth. Summer dormant. Suited to 550-650 mm rainfall areas. Maybe used in mixtures with Demeter or AU Triumph to improve cool season growth in higher rainfall areas. Developed in Australia by Agriculture Victoria and New South Wales Agriculture.

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