

## Spreading Tall Fescues

Tall fescue (*Festuca arundinacea*) is a great grass for the warmer and drier parts of North America and the world. It has the best heat and drought tolerance of any other cool season turfgrass. It is normally considered to be a non-spreading bunch grass, however tall fescue does spread by two methods: tillers and rhizomes.



*Rhizomes in Blade Runner tall fescue.*

Tillers are new shoots that form at the base of existing leaf stems. This is a slow method of spreading. Rhizomes are jointed underground stems that form new shoots and roots away from the existing mother plant. Kentucky bluegrass and creeping red fescue are well known for producing large amounts of rhizomes. Turf breeders are now trying to get tall fescue to spread by producing more and stronger rhizomes.

Rhizomes are underground stems that have the ability to form new plants at a distance from the mother plant. Tall fescue has always been known to occasionally produce a small number of rhizomes. In the past these were never considered to be significant for turf. But, this is no longer the case as breeders have developed new tall fescues like *Blade Runner* with a significant capacity to form rhizomes. Tall fescue does not have near the rhizome production of Kentucky bluegrass or even creeping red fescue, but it is improving. In the future we can expect more and more improvements in rhizome production.

Rhizomes help tall fescue turf to spread and to fill in bare spot and thin areas. This is a valuable asset because it improves the traffic tolerance and speeds the recovery time of tall fescue which is often used in high traffic areas, such as sports fields that are subject to damage. Rhizome production is also beneficial in sod production as it helps knit the turf together and they also help in drought tolerance and recovery.

Turf breeders have been working to improve tall fescue for many years. The results have been significant increases in turf quality, color, and disease resistance. Most new varieties are now endophyte enhanced, which improves overall turf performance, disease resistance, and insect resistance. Only recently has rhizome activity been a major breeding objective. Rhizome activity can be found fairly easily in spaced apart plants. But it is difficult to find rhizome activity in closely mowed turf. This is a continuing effort as rhizomatous plants are being actively identified and crossed together and even stronger rhizomatous plants (such as the future *Blade Runner II*) are identified for the next generation. This work is in active progress at the PICKSEED research station.

Some of the better known rhizomatous tall fescues are *Blade Runner*, *Grande* and *Labyrinth* (a 17% component of the RTF™ tall fescue blend, combined with 83% non-rhizomatous tall fescues). None of the cultivars yet approach the rhizome activity of Kentucky bluegrass, but *Blade Runner* certainly spreads better than standard varieties. In selecting a rhizomatous tall fescue variety the most important criteria is turf quality. It makes no sense to plant a spreading tall fescue with poor turf quality. A variety such as *Blade Runner* helps you achieve the goal of planting a high quality turf that has some rhizome forming capacity. Rhizome activity with unacceptable turf quality is a poor choice.

## Spreading Tall Fescues continued...



April 2006 rhizomes in tall fescue.

Many tall fescue users have mixed between 5 and 10% Kentucky bluegrass by weight with their seed to benefit from the profuse early rhizome production and spreading ability of Kentucky bluegrass. Mixing these two species also has disease resistance benefits as both species complement the disease weakness of the other. However, mixing the two is still a somewhat controversial practice as Kentucky bluegrass can be very competitive and eventually dominate the turf. This is why generally a non-aggressive, broader leaved Kentucky bluegrass cultivar like *Bronco* is usually recommended. Mixing tall fescue and Kentucky bluegrass will do the job much faster and more prolifically than any spreading tall fescue used straight.

The new Texas bluegrass x Kentucky bluegrass hybrid varieties have possibilities for mixing with tall fescue. The theory behind these crosses is to combine the exceptional heat tolerance of Texas bluegrass with the much superior turf quality of Kentucky bluegrass. There is active breeding work going on with these hybrids, and significantly improved types are available, such as *Bandera*.

Will the new tall fescues produce rhizomes in turf? There is still some controversy on this subject. A few turf experts will still say "no", but most others will now say "yes". An impartial observer might say that around 8 -10 months after seeding some weak-to-medium strength rhizomes can be noted under medium to close mowing. But do these rhizomes significantly improve the spreading ability and traffic tolerance of the turf? For most knowledgeable observers the answer would be "they are moderately beneficial". But, they certainly are better than having no rhizomes at all. The overall turf quality, color and disease resistance of a cultivar is more important than any alleged spreading ability. Choosing an outstanding, well adapted and proven variety like *Blade Runner*, that also has some rhizome activity is the soundest approach.



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