

Spreading, Tillering, Rhizomatous Tall Fescues

By Dr. Leah A. Brillman

Rhizome formation and aggressive tillering are two important characteristics we look for when selecting tall fescue cultivars

Tall fescue has traditionally been called a bunch grass but in many early publications the presence of rhizomes was noted in this species. Rhizomes are underground stems that have nodes from which daughter plants can grow. Tall fescues do not make as many rhizomes as Kentucky bluegrasses or creeping red fescues. Cultivars can be selected for the production of more rhizomes but it is important to remember to balance this with other important traits; aggressive tillering, high density, great color and resistance to important diseases like Brown Patch and Gray Leaf Spot.

Cultivars with rhizome formation have been noted to enable sod growers to harvest sooner, and is believed to contribute to wear repair on turf plantings. The length and number of rhizomes are dependent on the cultivar, soil, management and time of year. DLF Pickseed and Seed Research of Oregon have included rhizome formation as one characteristic in breeding our cultivars (Figure 1, Table 1).



Figure 1.

Aggressive tillering is another characteristic to help fill holes and maintain a dense turfgrass stand. When you look across a lawn you are just seeing the tops of tillers. In grasses that tolerate mowing the primary growing point stays very near ground level because the stem internodes do not grow much. Since this growing point stays low to the ground, it can continue to produce new leaves even though the tips of developing leaves are mown repeatedly. Each leaf in a grass plant is associated with another growing point or bud. These buds are very tiny shoots containing another growing point, several baby leaves, nodes, and internodes. As shoots die these buds grow out producing new shoots and will in turn be replaced by other buds that grow out to form lateral shoots.

This process continues with new shoots constantly replacing old shoots. Tillers are the primary lateral shoots that develop from these buds. The presence of more buds leads to more tillers to form higher density turf that fills in holes. Breeding of tall fescues with more growing points and less elongation of stem internodes ensures higher turf density that will tolerate a lower height of cut (down to 0.5 inch or 13 mm). Figure 2 shows mown spaced plants with greater tillering on the plots on the right.



Figure 2.

Table 1.

2013 Tall Fescue NTEP - 2014 Rhizome Counts (UT)

Visible Rhizome number in 2 plugs / plot 2014

Cultivar	Mean
Kingdom	9.3
Turfway	6.0
Grande 3	6.0
Nightcrawler	5.7
Fayette	5.7
Foxhound	5.7
Bloodhound	3.7
Unitus	3.0
Rhizing Moon	2.7
Rebounder	2.7
Rowdy	2.7
Trending	2.3
Crossfire 4	1.0
Hounddog 8	1.0
Xtender	0.3
LSD@5%	8.9