

TALL FESCUE

Tall fescue, a bunchgrass, may be planted in mixtures with other grasses and legumes. It establishes rapidly, withstands trampling, tolerates summer drought and produces fall-season pasture when other grasses become dormant. Tall fescue is subject to winter injury, but it may remain productive in areas with reliable snow cover.

Animal performance is better when the variety grown is endophyte-free. Endophytes are fungi that invade plant tissues, reducing forage palatability and animal performance.

The wheatgrasses are valuable native forage species. They are especially suitable for growing in the northern Great Plains area of the United States. The variety Newhy is a wheatgrass x quackgrass hybrid. Wheatgrasses can produce excellent forage yields and sustained productivity under hay and pasture management systems, either in monoculture or in mixtures with alfalfa or other suitable legumes. Recent releases of improved varieties have prompted interest in these species, especially in western areas of Minnesota.

Minnesota Agricultural Experiment Station scientists initiated performance trials of tall fescue and the wheatgrasses in 1992 and 1997. The trials were harvested three times per year, and nitrogen was applied in the early spring and after each harvest at rates of 50 pounds per acre.

Yields have been generally good, except at Rosemount in 1995 when plots suffered severe winter injury. The wheatgrasses and fescue x ryegrass hybrids did yield less forage than the tall fescue varieties. The wheatgrasses are better adapted to environments drier than the previous growing seasons. The fescue x ryegrass hybrids seem particularly prone to winter injury.

Dry matter yield, tons dry matter per acre, of tall fescue, wheatgrass and festuca-lolium hybrids seeded at three locations.

| Variety | Grand Rapids | | Rosemount | | Morris |
|-----------------------------------|--------------|-----------|------------------|-----------|-----------|
| | 1994-1996 | 1999-2000 | 1993-1995 | 1998-2000 | 1993-1996 |
| Tall Fescue | | | | | |
| Barcel | 3.0 | — | 5.3 | — | 4.5 |
| Cajun | — | 6.1 | — | 5.3 | — |
| Fawn | 3.3 | — | 4.9 | — | 5.0 |
| Ky 31 | 3.5 | 5.7 | 5.8 | — | 4.7 |
| Ky 31 endophyte-free ¹ | 3.3 | — | 5.6 | 5.9 | 4.9 |
| Martin | 3.6 | 5.9 | 5.3 | 4.8 | 4.7 |
| Maximize | — | 5.8 | — | 5.1 | — |
| Mozark | 3.5 | 5.8 | 5.4 | 5.5 | 4.8 |
| Mustang | 2.7 | 5.3 | 4.7 | 4.9 | — |
| Seine | — | — | — | 5.6 | 4.8 |
| Stef | 3.3 | — | 5.3 | — | — |
| Festuca-Lolium Hybrids | | | | | |
| Kemal | — | 4.6 | — | 3.3 | — |
| Tandem II | — | 4.7 | — | 3.3 | — |
| Wheatgrasses | | | | | |
| Manska | 2.9 | — | 4.0 | — | 4.8 |
| Newhy | 2.7 | — | 3.9 ² | 4.2 | — |
| Reliant | 3 | — | 4.2 | — | 5.0 |
| LSD 5% | 0.5 | 0.7 | 0.6 | 0.4 | NS |

¹ Endophytes are fungi that invade plant tissues, reducing forage palatability and animal performance.

² Newhy main yield reported for 1993 and 1994. Winter injury was severe at Rosemount in 1994-1995 resulted in stand loss of Newhy and reducing overall varietal yield by 25%

Tall Fescue Planting Rate and Date

| | |
|-----------------------------|------------------------|
| Bushel Weight, Pounds | 25 |
| Seeds/Pound..... | 229,000 |
| Planting Rate, Pounds/Acre | |
| Alone | 10 |
| In Mixtures..... | 4 |
| Planting Rate, Seeds Sq.Ft. | |
| Alone | 50 |
| In Mixtures..... | 20 |
| Planting Date | |
| Alone..... | Early Spring or Summer |
| With Legumes | Use Date for Legume |