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Meadow Fescue Has Haylage and Pasture Potential in Minnesota

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Meadow fescue may have the right combination of persistence, quality, and yield to make a valuable contribution to livestock production in Minnesota and the Upper Midwest as a whole. That's based on ongoing University of Minnesota research at Grand Rapids and Rosemount, and ongoing research at the US Dairy Forage Research Center (USDFRC) in Madison, WI. The USDFRC work has demonstrated relatively high fiber digestibility in meadow fescue compared to fiber in other grasses, which should translate into greater livestock performance potential.

Research conducted earlier this decade at 3 Minnesota locations demonstrated that meadow fescue's winter hardiness is comparable to that of smooth bromegrass and reed canarygrass. In contrast, several varieties each of tall fescue, orchardgrass, and perennial ryegrass in those trials all experienced some stand loss, particularly after a cold, open winter.

A meadow fescue variety evaluation was seeded at Grand Rapids in early September 2006, and harvested 3 times during 2007. In 2007 despite drought, meadow fescue variety yields ranged from 2.9 to 3.7 ton DM/ac compared to 3.2, 2.9, and 2.0 ton DM/ac for check plots of reed canarygrass, tall fescue, and orchardgrass, respectively.

In a grass/alfalfa mixture trial seeded at Rosemount in August 2006, a 50:50 seed mix of alfalfa and meadow fescue produced 4.0 ton DM/ac without additional N, and 5.5 ton DM/ac with 160 lb N/ac, totaled over 4 harvests in 2007, compared to 3.6 ton DM/ac for alfalfa seeded alone. The alfalfa/meadow fescue mixture was 25 and 33% alfalfa with and without N fertilization, respectively. A lower proportion of meadow fescue seed in the mix may have favored greater alfalfa content in harvested forage. Yields of alfalfa/orchardgrass and alfalfa/reed canarygrass (no N added) in 2007 were 4.2 and 4.7 ton DM/ac, respectively. The alfalfa/meadow fescue mixture had a weighted season-average RFQ of 149 without N, and 158 with N. In contrast, alfalfa alone and alfalfa mixed with either orchardgrass or reed canarygrass averaged only 135 RFQ.

Meadow fescue is a bunch grass like tall fescue, but with 1) softer leaves that are more ryegrass-like in appearance and feel, 2) greater winter hardiness, and 3) no harmful endophyte concerns. The density and shiny cuticle of its leaves may limit its potential for hay, but a growing database in MN and WI suggest real potential for pasture and haylage, especially where persistence and quality are priorities.