

MINNESOTA - Best Grasses for Horse Pasture

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For Midwest horse pastures, orchardgrass, tall fescue, meadow fescue, and Kentucky bluegrass have the greatest yield and persistence, according to a recent 2-year horse-grazing trial at St. Paul, MN. The study compared 11 different cool-season grass species (Table 1). Other grass species in the trial included meadow brome grass, quackgrass, reed canarygrass, perennial ryegrass, timothy, smooth brome grass, and creeping foxtail.

Four adult horses grazed replicated small plots of these grasses monthly from May–October 2010 and May–September 2011 to a minimum average residual height of 3 inches. Nitrogen fertilizer was applied at 50 lb/ac in early April and again in mid June in both years.

Orchardgrass, tall fescue, meadow fescue, and Kentucky bluegrass, maintained 78–90% ground cover. In contrast, timothy, reed canarygrass, smooth brome grass, and creeping foxtail had only 2–24% ground cover after 2 years of rotational grazing.

Orchardgrass produced the most forage (average 5.4 ton/ac/year). Creeping foxtail, smooth brome grass, and timothy produced the least forage (average 3.2 ton/ac/year).

Table 1. Persistence (% ground cover) and yield (ton DM/ac) of 11 different grass species rotationally grazed by horses in 2010 and 2011 at St. Paul, MN.

Grass Species	Spring-2012 Ground Cover	Total-Season Yield (2 year average)
Orchardgrass	79	5.4
Tall Fescue	79	4.5
Meadow Fescue	78	4.4
Kentucky Bluegrass	90	4.0
Meadow Brome grass	42	4.0
Quackgrass	40	3.9
Reed Canarygrass	24	3.9
Perennial Ryegrass	61	3.8
Timothy	24	3.4
Smooth Brome grass	14	3.3
Creeping Foxtail	2	2.9