

Overseeding Ryegrass on Pasture

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The perennial bluegrass, bromegrass, quackgrass provide a dependable ground cover and source of forage. However, none of these species are as high in forage quality as ryegrass which lacks winterhardiness for long-term stands in Wisconsin. Therefore, trials have been conducted in over the last two years looking at the potential to overseed permanent pastures with ryegrass to see if pasture yield/quality could be improved. This study was conducted by the UW Cooperative Extension Service, area grass farmers, Center for Integrated Agricultural Systems and Grassworks, Inc.

Each year sites were chosen within existing paddocks on each farm. All sites were upland, well-drained loamy soils. Five late-maturing Italian ryegrasses (Molisto, Sikem, Urbana, Multimo, Tetrone), two blends (Olds Tetrabana with Tetrone, Multimo and Urbana; Barenbrug Tetragold) and one perennial (Aubisque) were chosen for the study. The blends were only included the first year. A check with nothing interseeded was included at all sites each year. All varieties were seeded at approximately 20 to 30 pounds per acre. Each farmer used his own equipment to broadcast the seed into strips, applied fertilizer and did some minimal discing to incorporate seed. Pastures were sampled immediately before they were scheduled to be grazed based on the farmer's judgment of their readiness. Varieties were sampled eight times by clipping within a half square meter frame. Forage was clipped to a 1 inch height, oven dried at 55 C and weighed. Samples were ground, and analyzed for forage quality (crude protein, acid detergent fiber, and neutral detergent fiber) using near infrared reflectance spectroscopy.

Forage yield was generally not affected by interseeding ryegrasses into permanent pasture. The grasses were contributing to yield through August but were apparently displacing other grass yield rather than making additional contributions. Each year, plots with Aubisque tended to be lowest yielding. The check (no overseeding) was midrange during 1997 and among the lowest yielding in 1998 when growing conditions were better.

In 1997, plots seeded to ryegrasses tended to have higher protein and lower fiber than the unseeded check. However, in 1998 overseeding with ryegrass did not improve forage quality. It is likely that early dry conditions did not give the ryegrasses a chance to get well established in 1998. This favored the perennial grasses from the sod (bromegrass and quackgrass) during the early season resulting in no benefit from the ryegrasses.

In summary, it appears that overseeding ryegrass will improve forage quality but not yield in years when the good moisture occurs early in the season.