Many forage producers are thinking about what to plant this spring. Renovation of forage stands is a smart move, as they tend to lose productivity over time. Stand loss from winter injury or disease is easy to see, but research has shown that even older forage stands that appear healthy do not yield as much forage as younger stands. Many forage producers are curious whether there are additional forage species which may have some advantages over the ones traditionally grown, or if there is a forage species especially adapted to a specific need in a forage production system. The forage seed industry and University personnel have been active in recent years evaluating additional species and developing improved varieties of traditional ones, some of which are likely to have a useful role in many forage production systems.

The ryegrasses have been getting a lot of attention lately. There are two basic types, annual (or Italian) and perennial. They are characterized by very vigorous growth habit and potential for high forage yield and quality. The ryegrasses are widely grown in other parts of the world, but have been limitedly used in the upper Midwest for various reasons. Annual ryegrass may be very useful as a companion crop for establishment of perennial forages, especially in pastures. It establishes very quickly to aid in weed and erosion control, and would also provide substantial amounts of good quality forage during the seeding year. Other potential uses for annual ryegrass would be as an emergency forage, or for seeding into winter feeding areas damaged by heavy animal traffic and with heavy concentrations of manure. When used as a companion crop for perennial forage establishment, annual ryegrass should be seeded at a fairly low rate, about four to six pounds per acre, so as not to provide excess competition. Perennial ryegrass has had the reputation of being susceptible to winter injury. However, plant breeders have been developing varieties with improved winter hardiness. A number of varieties have survived for at least two production years in Minnesota. Harvest management research has evaluated cutting schedules to investigate strategies to improve winter survival. It appears important to have a short stubble height prior to snow cover to minimize damage from snow mold. Perennial ryegrass may have a place in forage systems in the upper Midwest; however producers may want to try it on a limited basis at first. Perennial ryegrass is likely to have a shorter stand life than familiar species such as orchardgrass or reed canarygrass and is susceptible to rust.

Tall fescue is a cool season perennial grass with several traits which can make it useful in grazing systems. It addition to excellent forage yield potential and persistence, tall fescue stays growing later into the fall than many other grasses, so can be useful for fall stockpiling and extending the grazing season, thereby reducing winter feeding
costs. Tall fescue is a sod-forming grass, and is more tolerant of animal traffic than most other grasses, so it may work very well as a pasture for spring turn-out of cows with newly born calves. In the past, there have been animal health problems associated with tall fescue, due to the presence of microorganisms called endophytes present in the forage. Endophyte-free or friendly-endophyte varieties are now available. Also, tall fescue forage has been considered lower in palatability than forage of other cool-season grasses and not readily accepted by cattle. Some fine-leaved varieties have been developed that under proper harvest management are readily grazed.

Another cool-season grass which may be useful in upper Midwest grazing systems is festulolium, which is a cross between ryegrass and tall fescue. In the development of festulolium, plant breeders intended to combine the high productivity and forage quality potential of ryegrass with the winter hardiness and fall growth of tall fescue. Their attempts appear to be at least partially successful. Several varieties have survived for two production years in a small plot forage yield study in Grand Rapids, Minnesota, and have forage yield equal to or greater than ryegrass or tall fescue. Here again, producers may want to try festulolium on a limited basis to evaluate how it performs in their particular forage system.

A forage management factor to keep in mind with these potentially high yielding, high quality grasses is the need for adequate soil fertility management. A common perception with pastures is that many of the nutrients consumed by grazing animals are returned to the pasture via manure. While this may indeed be true, animal waste is not deposited uniformly, and plant nutrients in manure are not all readily available for plant growth. Addition of commercial fertilizer to pastures will often result in increased forage yield. Development of a soil fertility plan based on soil test data is the most reliable method to make sure the forage yield potential of any species can be realized.