A Look at the Major Cool-Season Grasses

There is no perfect grass for grazing or hay production in Missouri. There are advantages and disadvantages to each different type, including the four listed below. By knowing a little more about the pros and cons of the major cool-season grasses, producers may be better able to select the one that most closely meets their needs.

**Tall Fescue** – Tall fescue is the most widely grown cool-season forage grass in Missouri. Its popularity is due primarily to its hardiness and adaptability. Tall fescue can be successfully grown on almost any type of soil and a well-established stand can survive through the coldest winters, the hottest summers and all but the heaviest of grazing. It is also the best choice to stockpile for winter grazing. The biggest drawback to fescue is that it contains an endophyte that produces compounds that can be toxic to cattle and grazing animals. The effects of this endophyte can be lessened with animal genetics or proper management of tall fescue. An alternative would be to use endophyte-free or novel endophyte fescues. However, these varieties typically are not as persistent as regular fescue and/or can be much more expensive to establish.

**Smooth Bromegrass** – The forage quality of smooth bromegrass (brome) is typically much higher than that of tall fescue and orchardgrass. And, even though Missouri is at the southern limit of its range, brome has very good drought tolerance. These are the two major benefits of having brome. Brome makes excellent quality hay but producers are typically limited to one cutting as brome does not recover well from plant tip removal. Brome is also a high quality forage for grazing, especially in rotational systems, but the majority of production occurs before June 15, leaving little for cattle to eat during the summer and fall months. Brome also requires nitrogen fertilizer application to avoid becoming sod-bound.

**Orchardgrass** – Orchardgrass is nearly as adaptable to wide variety of soils as is tall fescue, with the added benefit that animal performance is typically greater on orchardgrass than on tall fescue. Orchardgrass can be grown in pure stands but, since it is a bunchgrass, it works very well when grown with legumes such as alfalfa, clover, or lespedeza. Orchardgrass is susceptible to a variety of diseases but there are disease-resistant varieties available. The biggest drawback to orchardgrass is that it is not as nearly drought resistant or winter hardy as tall fescue or brome.

**Timothy** – Timothy is a late-maturing cool-season perennial bunchgrass that provides cattle with high quality forage later in the season than orchardgrass or tall fescue. Timothy is extremely winter hardy and is considered to be one of the few cool-season grasses that is suitable for wildlife habitat. The biggest problem with timothy is that it does not persist well under drought conditions. Timothy has long been thought of as the premier hay for horses, but it is not necessary to feed horses timothy hay as there are many suitable alternatives.

For more information about these or other forages, contact your county extension center.