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Evaluating the Adaptability of Forage Species and Varieties in Northwest Iowa

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Evaluating the Adaptability of Forage Species and Varieties in Northwest Iowa

Abstract

Forage crops are important to the diversified crop and livestock farms still common in northwest Iowa. Producers need a variety of forage species for improved pasture, hay production, and nitrogen fixation and as components of crop rotations. Forages are also used for cover crops, buffer strips, and waterways to reduce soil erosion and improve water quality.

Disciplines

Agricultural Science | Agriculture

Evaluating the Adaptability of Forage Species and Varieties in Northwest Iowa

David Haden, farm superintendent

Forage crops are important to the diversified crop and livestock farms still common in northwest Iowa. Producers need a variety of forage species for improved pasture, hay production, and nitrogen fixation and as components of crop rotations. Forages are also used for cover crops, buffer strips, and waterways to reduce soil erosion and improve water quality.

The harsh climate of Iowa can make forage establishment difficult, limit yields, and reduce stand longevity. Alfalfa and smooth brome are the most commonly grown forages because of their proven adaptability. As new forage species and improved varieties are introduced, local information on adaptability is often incomplete. To increase forage use and reduce production risks, producers need this kind of location-specific information.

Which forages are adapted to northwest Iowa? Six experimental forages were evaluated from 2000 to 2003. Bermudagrass and perennial ryegrass are not well adapted as perennial forages in northwest Iowa. Kura clover, eastern gamagrass, cicer milkvetch, and intermediate wheatgrass do adapt well there. Other forages included in this study were alfalfa, red clover, birdsfoot trefoil, berseem clover, smooth brome, orchardgrass, timothy, tall fescue, and annual ryegrass.

Alfalfa had the highest overall average annual dry matter yield of 6.95 tons/acre (Figure 1). For the grasses, tall fescue had the highest annual average dry matter yield of 5.92 tons/acre. Berseem clover had the lowest average annual dry matter yield among legumes of 1.67 tons of dry matter/acre. Annual ryegrass had the lowest average annual dry matter yield of all forages at 1.49 tons of dry matter/acre.

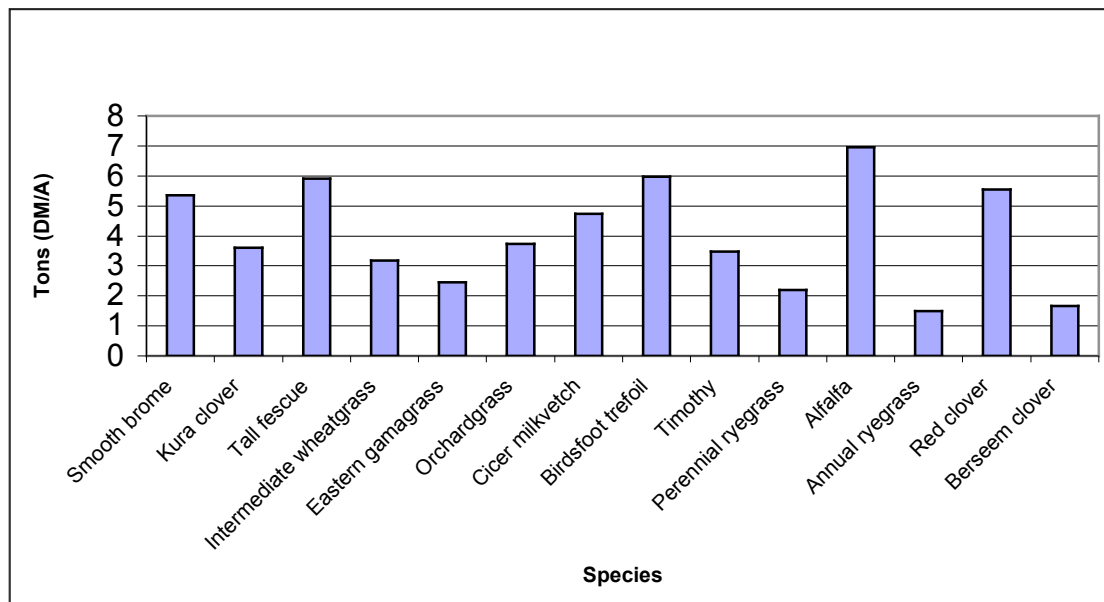


Figure 1. Average annual dry matter yields.