

The importance of the dominant native grasses in forage grazing systems is widely recognized. The value of prairie forbs (non-woody, broadleaf plants), often considered weeds, is not as commonly understood.

Prairie forbs can benefit grass production in many ways. Legumes comprise a large percentage (the third largest plant family in Kansas) of the grassland forb species. Most legumes

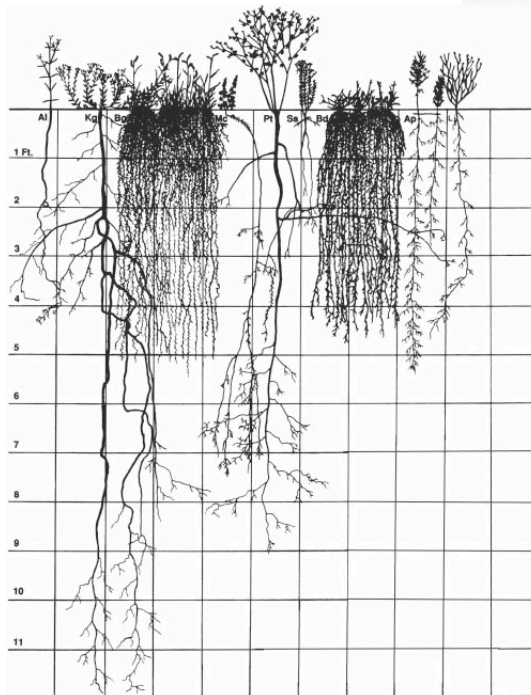


Figure 1. Each square equals 1 ft. The two fibrous rooted grasses reach a depth of 5 ft. The tap rooted forbs reach as much as 12 ft. From Weaver and Albertson, 1943. (KSU-AES & CES pub. MF-1020, Dec 1991)

are able to fix nitrogen from the air and enrich the soil. Many perennial forbs improve hay quality.

Native forbs do not compete with the grasses for moisture or nutrients because the forb root structure extracts water from deeper soil horizons than grasses. The deep rooted forbs have been called a nutrient pump because they bring trace elements up from deep below the reach of most grasses. Maintenance of perennial forbs could reduce the need for livestock supplements. Many plants regarded as weeds by cattle producers can be a forage source for livestock and an important component of the grassland ecosystem.

Benefits

Some of the benefits of native plants and plant diversity include:

- 1) the network of perennial roots prevent soil erosion and filter water,
- 2) native prairies provide excellent forage for livestock,
- 3) well-managed grasslands serve as an important carbon bank, storing vast amounts of organic carbon, that could otherwise be oxidized to become a greenhouse gas,
- 4) intact prairies offer food and habitat for wildlife (birds such as upland

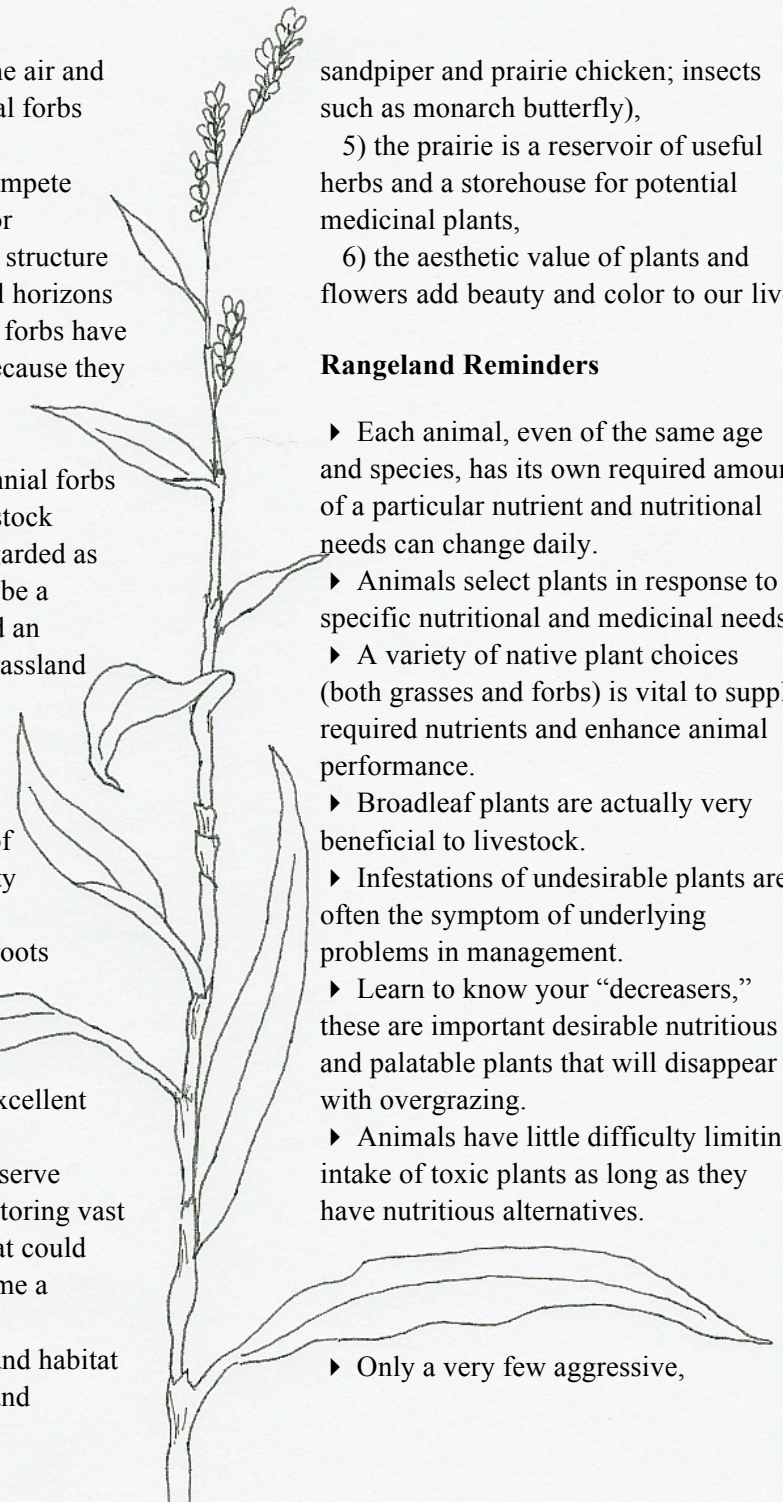
sandpiper and prairie chicken; insects such as monarch butterfly),

5) the prairie is a reservoir of useful herbs and a storehouse for potential medicinal plants,

6) the aesthetic value of plants and flowers add beauty and color to our lives.

Rangeland Reminders

- ▶ Each animal, even of the same age and species, has its own required amount of a particular nutrient and nutritional needs can change daily.
- ▶ Animals select plants in response to specific nutritional and medicinal needs.
- ▶ A variety of native plant choices (both grasses and forbs) is vital to supply required nutrients and enhance animal performance.
- ▶ Broadleaf plants are actually very beneficial to livestock.
- ▶ Infestations of undesirable plants are often the symptom of underlying problems in management.
- ▶ Learn to know your “decreasers,” these are important desirable nutritious and palatable plants that will disappear with overgrazing.
- ▶ Animals have little difficulty limiting intake of toxic plants as long as they have nutritious alternatives.
- ▶ Only a very few aggressive,



non-native plants require expensive herbicide treatment, these can be target sprayed.

Wildlife Tips

- ▶ Wildlife of all kinds depends on native seeds, fruits, and green vegetation in their diet.
- ▶ Forbs are utilized as food by wildlife much more than grasses.
- ▶ Flowering forbs attract insects which are necessary in animal diets, especially game birds.
- ▶ The top non-grass species utilized by wildlife in the prairie region are sunflower, goosefoot, hackberry, knotweed, ragweed, pigweed, prickly pear, croton, blackberry, and a variety of sedges.
- ▶ Dense stands of wild plants are required by many animals for shelter and nesting materials.

Grasses dominate the prairie. They make up 80 percent of the above ground biomass. But in terms of plant species, more than 70 percent of the prairie plants are forbs.

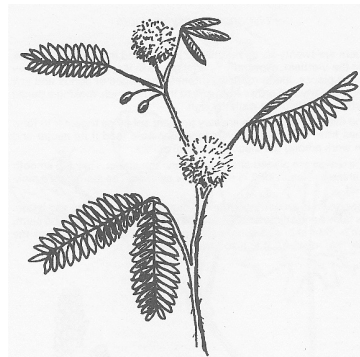
Thousands of acres of native prairies are hayed annually. These native hay meadows are tremendously important to the survival of many grassland plants and animals of the region.

Maintaining the integrity of healthy and diverse native prairies in Kansas is good business and a wise investment in our natural heritage.

Additional detailed information about plant species with text references can be found on the KNPS website:

www.kansasnativeplantsociety.org
Click on *Resources* and go to *Rangeland Management*, then see “The Value of Prairie Plants.”

Look for Rangeland Management Schools in your area at **www.kglc.org**



Kansas Grazing Lands Coalition

Kansas Native Plant Society

Tallgrass Legacy Alliance

Secrets of Prairie Plants

A guide for land owners and managers.



Why is Plant Diversity on Prairie Rangeland so Important?

What Benefit are Specific Plants to Forage Grazing Systems?

In What Way does Wildlife Survival Depend on Native Plants?

Native prairies, whether pastures or hay meadows, are vital reservoirs of plant diversity. The benefits of natural diversity are many. Management decisions could have a long-term positive or negative impact on prairie integrity. Understanding plant diversity can save the land manager time and money.