

Native Grasses, The Most Important Thing Growing in the Landscape

A healthy, productive and sustainable habitat should have many different species of all types of plants; woody plants (trees and shrubs), forbs (weeds and wildflowers) and grasses, all growing together. Diversity is good. Each type of vegetation has different characteristics and performs a different function in the ecosystem, and most of us, if shown pictures of different landscapes, would choose scenes where all three types are evident as the most beautiful.

However, of the three main types of plants, grasses are arguably the most important in creating and maintaining a healthy, sustainable landscape. Native bunch grasses, because of the type of root system they have, generally do a better job of keeping the soil in good condition, preventing erosion, and capturing rainwater than do forbs or trees. If all of the Hill Country were just a sea of grass, it might not be as beautiful or support as many animal species as it does now, but it would be much better than if only trees or only forbs grew here.

The Tall Grass Prairie, which stretched from just north of here all the way to Canada, was once the largest continuous grassland in the world, and today is frequently called the breadbasket of the world. Before settlement, the majority of the grasses in this region were called the Big Four, and were Little bluestem, Big bluestem, Switchgrass and Indiangrass. These four grasses not only happen to grow tall (with seed heads from 4 to 8 feet tall), but they also produce huge quantities of forage and are highly favored by all grazers.

While the population of these grasses in this area is much smaller than it used to be, all four can still be found. Little bluestem is believed to have dominated grasslands in this area before settlement and is still quite common and a good indicator of a well-managed grassland. Switchgrass is most often seen along creeks and streams and helps protect stream banks from erosion.

Other very desirable grasses from the standpoint of forage quantity and quality include Sideoats grama (the state grass of Texas), Eastern gamagrass, Silver bluestem, Plains lovegrass, Canada wildrye, Texas wintergrass (speargrass), Blue grama, Buffalograss, Green sprangletop, Southwest bristlegrass and Meadow dropseed. All well-managed ranches in this area will have at least two of the Big Four plus half of the above grasses in abundance.

In contrast, there are many grasses that are either too small to produce significant amounts of forage or are unpalatable for various reasons. Finding many of these grasses in a pasture is an indication of overgrazing. This list includes Texas grama, Red grama, Windmillgrass, Purple threeawn, Oldfield threeawn, Japanese brome, Hairy tridens, Red lovegrass and Common sandbur.

Grasses which are frequently found around water and may help stabilize riparian areas include: Bushy bluestem, Lindheimer muhly, Switchgrass, Aparajoggrass (plus numerous species of sedges and rushes that look like grasses but aren't.)

Grasses which grow early in the year are called cool-season grasses and include Texas wintergrass, Canada wildrye, Rescuegrass, Scribner's dichanthelium, Perennial ryegrass.

Introduced grasses that compete with natives and become problems either because they are invasive and/or because they prevent better-quality grasses from growing include Bermudagrass, Johnsongrass, KR bluestem and related species (Kleburg bluestem and Old World bluestem), Japanese brome (cheatgrass), Green bristlegrass, Hairy crabgrass and Dallisgrass.

Most native grasses are bunch grasses, which means that they form a clump of foliage in a bunch, usually round, instead of growing spread out like a lawn (turf) grass. Some exceptions are Buffalograss, which is frequently grown as a lawn grass, and curly mesquite, both of which spread by runners (stolons) just like Bermuda or carpet grass.

Much of the beneficial properties of native grasses have to do with the way bunchgrasses and their roots grow and the symbiotic relationships they form with soil organisms. This was discussed in a previous column. One characteristic of bunch grasses is that mowing or grazing too frequently or too short will weaken the plant and cause it to be replaced, usually by something less desirable.

Landowners wishing to learn more about this and many other land stewardship topics should consider attending some or all of the four-part series on land management sponsored by the Texas AgriLife Extension. The sessions will be from 1 to 5 pm on Mondays, May 2, 9, 16, 23. To register, and for more information call 257-6568 prior to April 29.

Until next time...

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