

# Native Prairie: The Key to Maximizing Profits & Improving Habitat

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When you think of endangered ecosystems, maybe the Amazon Rainforest or the Great Barrier Reef comes to mind, but what if I told you one of the most endangered ecosystems in the world lies right here, in Kansas?

The Flint Hills of Kansas contains the largest continuous piece of tallgrass prairie left in the world. This prairie ecosystem once covered 170 million acres stretching from Saskatchewan, Canada to Texas, and from Kansas to the Mississippi. Today, less than 4% of the ecosystem remains, and only because of the shallow, rocky soil that couldn't be plowed. For a prairie that was taken for granted for so long, it's adaptability to this climate may be the key to maximizing livestock production while also improving wildlife habitat.



For thousands of years, the plants of this prairie ecosystem adapted to extreme environments of hot, dry summers and harsh, cold winters. Extreme drought known as megadroughts often plagued the tallgrass prairie, one of which began in the year 1317 and lasted for 110 years. This hostile environment gave these plants the choice to grow deep roots, or die and thus 60 species of grasses, 300 species of wildflowers and 100 species of lichens and woody species survived to call the tallgrass prairie their home.

These grasses that have long adapted to this hostile environment were featured in a recent report published by the USDA. A collection of research showed that these native grasses are more efficient than our non-native, cool season pastures such as fescue and brome.

When compared in a continuous 6 month grazing season, native grasses of switchgrass, big bluestem, eastern gamma and Indian grass produced higher average daily gains and more pounds per acre than that of the tall fescue pastures. For the switchgrass comparison that increase was a 66% higher average daily gain! Another study showed that Big Bluestem produced 48% higher average daily gains and a 30% higher total beef yield in pounds per acre. Our native pastures were able to do this without relying on fertilizer and with 2 times higher efficiency in water use of the fescue pastures.

This is also great news for wildlife habitat. For pheasants and quail, brome and fescue pastures aren't ideal habitat. These sod-forming grasses choke out native wildflowers that provide a food source of insects and seeds, they provide little to no cover, and they are too dense for young chicks to move through.



That isn't to say that cool season grasses don't have their place. Cool season grasses whether native or not, are crucial for extending our grazing season as these grasses peak in nutritive quality when warm season grasses are either dormant or low in protein. By including cool season pastures into our grazing system, we lengthen our grazing system and bridge annual forage production gaps giving us opportunities to practice year-round grazing.

Perhaps the way to think about it is balance. What types of pastures do you have, are they mostly introduced cool season pastures? Are you tired of the input costs of fertilizer? Are you interested in improving wildlife habitat and grazing? Then managing for or planting native warm season grasses might be for you. By utilizing both types of pastures we not only increase the diversity of our pastures and grazing systems, but we can maximize profits, improve wildlife habitat, and help preserve this endangered ecosystem by utilizing the plants that were destined to be here in the first place.