

Patch Burning Important for Wildlife and Native Grass Health

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For thousands of years before the settlement of the Great Plains, the North American prairie was maintained through a combination of fire and wildlife grazing. Lightning from thunderstorms started the fires prior to the arrival of the first Native Americans. These naturally-occurring fires likely ranged from relatively small to many thousands of acres in size. Eventually, early peoples noticed something remarkable. After a fire, the grass grew back quickly and was full of protein and flavor, which attracted herds of bison and elk that would linger and graze for weeks. Native Americans began starting fires themselves, enticing animals to graze in areas where they could hunt them more safely and efficiently. Because both the animals and the people were usually on the move, the prairie was a patchy mosaic of burned and grazed areas in different stages of growth.

The prairie not only benefitted from fire, it became dependent on it. Burning clears the ground from thatch (dead grass from previous years), returns nutrients to the soil, opens up areas for weeds and wildflowers to flourish, and helps keep trees from taking over. Native wildlife adapted and evolved to live and reproduce in these conditions. With nutritious, tasty grass always available somewhere, large herbivores thrived. Native grassland birds could move about more easily on the ground and raise their young. Many different types of pollinators fed among the plentiful wildflower blossoms.

Once the plains were settled and converted into farms and ranches, fire became far less prevalent. Fenced-in domestic livestock replaced the free-ranging native herbivores. Native grasses and forbs became overgrazed and were increasingly supplanted by nonnative grasses. Trees began to spread, consuming precious acres of what had once been open native grassland. With the establishment of man-made structures and permanent residents, suppressing fire became a matter of protecting life and property. Along the way, we forgot that some of our most valuable resources need fire. Even our old friend Smokey Bear misled us into believing that all fire is inherently bad.

Of course, we can't let wildfires burn uncontained in today's world. But we can come close to replicating the original fire regimes that once regulated the prairie in a way that is targeted, strategic, and as safe as possible. Prescribed burning is the single most effective means available for preserving and protecting our native grassland and wildlife resources. In this part of Kansas, maximum benefit is usually derived from a three- to four-year burn cycle. While annual burning can sometimes offer optimal cattle gains, we know that it does not provide long-term health for native rangeland or wildlife.

Patch burning works to mimic original native prairie conditions on a much smaller scale. Under this system, a specific area is divided into three or more "patches", and one patch is burned per year. This system offers excellent long-term range health and wildlife benefit while still providing livestock gains competitive to annual burning. Refinements can be made to the timing of burns to address specific problems or objectives.

Prescribed burning isn't only for grazed rangeland. As long as the burn can be conducted safely and there is sufficient fuel to carry a fire, other native grass areas can be burned, too. Native grass buffer strips, hay meadows, CRP ground, fence rows, and crop field edges all benefit from fire.

Assistance is available to producers and landowners who are interested in starting a burn program on their land. To see if patch burning is right for your operation, contact your local USDA-NRCS office. We can provide you with no-obligation technical advice on prescribed burning, as well as information on Federal or state cost-share assistance to get you started on the path to ensuring your grassland and wildlife resources are healthy now, and for the long run.