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PRESCRIBED BURNING

Spring is just around the corner. One sign of spring in the Flint Hills is burning of the Kansas tallgrass prairie. Cowley County is located on the edge of the Flint Hills and is one of 17 Kansas Counties included in the Flint Hills Smoke Management Plan. We're no stranger to smoke in the air during the spring, but why?

Many producers in the tall grass prairie utilize prescribed burning as a management plan for their ranches. Prescribed burning is utilized by foresters, ranchers and producers in different areas across the United States. When a producer conducts a prescribed burn, they are intentionally setting fire to the land in order to better manage it. In Kansas, prescribed burning takes place as a major management practice for native and established grasslands, hay meadows and to establish and manage new native grass stands.

Prescribed burns have a number of objectives, but typically, the main goal is to enhance the nutritional value of Kansas native grasses and control weeds, trees and brush. Fire can recycle nutrients that are held up in old plant growth, stimulate new plant growth, control woody and herbaceous plants, improve grazing distribution, reduce wildlife hazards, improve wildlife habitat and increase livestock production.

Burning is beneficial to yearling and stocker producers as well as the cow-calf producer. In yearling and stocker operations, research shows that animals grazed on late spring burned pastures can gain 10 to 12 percent more than on unburned or early burned pastures. This is due to higher quality forage availability and the benefits are only realized the year the burning takes place. The benefits of burning to a cow-calf operation are not shown in cattle gains. Rather, burning is done to control weeds, cool season grasses, improve grazing distribution and reduce litter buildup. This benefits producers as a highly productive grassland is developed over the long-term. In order to achieve these goals, fires must be used under proper conditions and with proper timing.

What about smoke from spring burning? Smoke from a range fire causes little detrimental effects long-term to air quality. There is no known permanent environmental damage. However, short-term exposure to smoke can cause health effects to individuals with respiratory conditions or cardiovascular disease. Smoke plumes from range fires in spring that originate in the Flint Hills have contributed to air quality concerns in larger cities including the Wichita and Kansas City areas as well as states downwind from Kansas.

The Flint Hills Smoke Management Plan "was developed in an attempt to balance the need for prescribed fire in the Flint Hills with the need for clean air in downwind communities." The website for the Flint Hills Smoke Management Plan (<u>ksfire.org</u>) is a resource for producers to access tools to help them in their burning decision. In 2019, KC Olson, Kansas State University

Range Management Scientist reported, "This year, we burned more acres than is typical and we have had fewer air quality problems," Olson said. "People are learning to interpret such things as wind direction, wind speed, mixing height...so they can be more cognizant of where that smoke is going to travel."

Prescribed burning is an excellent management tool to producers in the Flint Hills, and specifically, Cowley County. With proper management, both pasture quality and air quality can be maintained.

For more information on prescribed burning contact the Cowley County Extension Office 221-5450, 441-4565. Additional information about the Flint Hills Smoke Management Plan is available at ksfire.org

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