

Factors in determining the proper timing for prescribed burns

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As we enter the season for pasture burning, one of the questions that I often hear is: Why do people burn and when should they burn? Dry weather and lack of fuel the last couple of years have made managers reluctant or unable to burn. Projections are that 2014 will be a big prescribed burning year. Warm-season range grasses will not start growing until later in the spring as air and soil temperatures increase. The time to burn native warm-season grasses depends upon your goals. Increased stocker gains and brush control are normally enhanced by burning in the mid- to late-spring when the native grasses have an average of ½ to 2 inches of new growth. This usually occurs by mid- to late-April in the Flint Hills region. Ideal dates may be shifted as much as 10 days earlier or later, depending on temperatures. Ideally, the soil profile should have adequate water at the time of burning and the surface should be damp.

Other reasons for burning include improved livestock distribution, wildlife habitat enhancement, maintenance of CRP stands, and conservation of native plant communities. Timing for these purposes is more flexible and can be done earlier. On ungrazed areas that have not been burned for some time, a benefit of prescribed burning is the removal of thatch and improved plant vigor. Burning of CRP needs to comply with contract stipulations. These dates are set to avoid prime nesting season for many bird species. Wildlife managers prefer to have a mosaic of different aged burns across the landscape to enhance plant diversity and provide different habitat needs for the wildlife species they are trying to help.

Another reason for conducting a prescribed burn is to reduce wildfire severity. Areas that have a tremendous buildup of fuel can be very dangerous under wildfire conditions. These burns can be done at any time, provided the conditions are safe and burning will accomplish your goal.

Timing of the prescribed burn will affect species composition on grazed rangeland. Big bluestem, indiangrass, and switchgrass basal cover increase when the range is burned in late spring compared to unburned sites. The basal cover of little bluestem is normally maintained by late-spring burning. In the tallgrass prairie area, late spring burning will generally maintain sideoats grama and buffalograss. On grazed tallgrass rangeland early burning reduces forage yield. There is no difference in forage yield between a late-spring burn and unburned range.

With no burning over the long term, the cover of woody plants increases by about 1 percent per year initially, but then accelerates such that prairie grasses and forbs can be completely displaced by 100 percent tree and shrub cover in less than 40 years.

The effect of burning on undesirable woody plants and forbs will vary, depending on the growth habit. In general, plants are more easily killed by burning when their growing points are aboveground, are unable to resprout from belowground, and their food reserves are at the lowest point.

Lack of moisture, high winds, and low humidity have made prescribed burning a difficult task thus far in 2014. Red flag warnings have been issued a number of times. Always contact your local authorities when planning to conduct a prescribed burn. Pay close attention to the weather forecast, not only the day of the burn, but the following day as well. Weather conditions can change and cause flare ups from fires previously thought to be contained or out. **Visit ksfire.org** for information related to prescribed burning, links to National Weather Service offices, and a model that predicts where your smoke will travel.

Butler County requires notification before starting any controlled burn and authorization for all burns of less than 40 acres. For notification/authorization of a controlled burn please call (316) 322-4398. In the Andover Fire District please call (316) 733-5177. In the Augusta Fire District please call (316) 775-4500. **Visit bucoks.com** and go to the Emergency Communications department for Butler Co. controlled burning information.

