



POTENTIAL BENEFITS OF PATCH BURNING FOR PRAIRIE-CHICKENS

Update on the article in the Fall/Winter 2011 edition of PRAIRIE WINGS. To view the article online, including spectacular photographs, go to <http://www.prairiewingsmagazine.org/>

Year one of the study to define the differential impacts of annual burning/double stocking (one yearling per 2 acres for 90 days) versus patch burning a different third of a pasture each year with full-season cattle (one yearling on 4 acres for 180 days) is over and year two has proceeded.

First-year results appear to confirm the hypothesis that Prairie-chicken nesting and brood-rearing are vastly more successful on patch-burned prairies. The key for Prairie-chickens, especially nesting, is the third that has not been burned in the current or previous spring – leaving sufficient residual cover for hens to hide nests.

The last two seasons in the central Flint Hills have been devastatingly hot and dry. But Prairie-chickens apparently are adapted to this situation if there is nesting and brood habitat available. Recruitment last year (2011) was major, and according to reports from the cowboys monitoring the pastures this past summer it may have been equally successful this season.

On our place, Prairie-chicken numbers from lek counts of males have gone from a low of 33 in 2006, the year we began patch burning, to 110 this past spring. This count includes cocks on three leks that are adjacent to our pastures. Two newly-occupied leks on our ranch and another new lek, 100 yards east of our fence appeared this spring

I am definitely an ardent fan of this grazing/burning regime and not just for wildlife. The other benefits include: improved range health, a greater abundance of forage, marked reduction in trailing (the tendency of cattle to walk the fences creating trails that lead to erosion) and more efficient grazing (every digestible plant is harvested on a three year rotation, but that intensity only occurs once in three years with our approach in the Flint Hills).

Prior to this project in Kansas, much of the fundamental research and field studies on patch burning have been conducted by Samuel D. Fuhlendorf at Oklahoma State

University. That work has demonstrated that patch burning and varying grazing regimes can be used to recreate grassland heterogeneity and increase biodiversity. Audubon of Kansas is also using patch burning with light-to-moderate grazing to benefit Sharp-tailed Grouse and other grassland birds on the 5,000-acre Hutton Niobrara Ranch Wildlife Sanctuary in Nebraska.

– Bill Browning

The photo above shows patch burning on the Niobrara Sanctuary showing unburned nesting cover retained on the left and prescribed burning on the right.