

Managing Native Grass Forages

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Patch-burn Grazing

Over the past 20 years or so, a very old notion has come back into the picture for managing native rangelands in the Great Plains. The approach uses prescribed fire to manage grazing pressure within pastures. Cattle preferentially graze areas that have been burned more recently over those burned a year or more ago – or not burned at all. Because of this selection, cattle grazing patterns can be manipulated by burning different “patches” within a pasture over the course of a three-year period. This approach is referred to as patch-burn grazing. Range scientists believe that this cycle of burning and grazing and their interaction mimics what has taken place in North American grasslands for eons – except originally with buffalo and not cattle.

Patches burned in the current spring have higher nutritive value and palatability than other parts of the pasture. Consequently, cattle will spend the majority of their time in this patch. The third of the pasture that was burned one year earlier receives a fair amount of use, but much less than the current spring’s burn patch. And the patch burned two spring’s previously, receives very little use. This built-in “rotation” among the patches within the pasture allows each third to receive increasing amounts of rest the greater the interval since burning. Despite very heavy use in the year of the burn, in years two and three, the stand has ample time to recover and become quite vigorous.

There are a number of advantages to patch-burn grazing. First, management can be easier compared to rotational grazing. A single water source can be used, no cross-fencing is needed, and there is no need for moving cattle throughout the season. Another advantage is that patch-burn grazing creates a higher degree of plant, insect, and wildlife diversity within the pasture. This is because each patch is at a different stage of succession following the grazing and fire – and while the pattern may shift within the pasture, is always present. Interestingly, animal performance with patch-burn grazing is similar to that with more traditional management, such as rotational grazing. For producers, patch-burn grazing is a viable option, one that involves the trade-off of implementing an annual burn vs. greater management during the summer for rotational grazing – but with no lost production.

Over the past two summers, a UTIA study being conducted in collaboration with the University of Kentucky has evaluated the use of patch-burn grazing on the much smaller pastures we have here in the Mid-South. Studies conducted on the Great Plains have been on much larger pastures – 320-640 acres, or more. So far, our preliminary results suggest that this approach can work on native grass pastures as small as 20 acres. Cattle still show preference in where they graze and animal performance does not appear to differ from rotational grazing.

Patch-burn grazing may not be the tool for you, but even here in the Mid-South, it certainly is an option for managing native grasses. For wildlife enthusiasts, it may be a way to enhance habitat while still producing beef.