

The landowners' decision: Grazing and fire as management tools on Iowa grasslands and oak savannas

Abstract: Surveys were used to examine landowner attitudes, perceptions and knowledge of fire as a management tool for controlling invasive species and enhancing conditions for native plants and animals on recreational and productive agricultural lands.

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The survey and conceptual mapping processes revealed lack of experience and knowledge of prescribed burning as an effective tool for managing encroachment of eastern red cedar, protecting and restoring native prairie, and providing quality forage for cattle production.



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What was done and why?

Research has shown that fire and fire-grazing combinations are effective management strategies that can be used to maintain and restore agricultural grassland ecosystems. However, private landowners have been slow to learn about and adopt these practices in Iowa. In this project the investigators began to explore what the individual and community barriers are to adoption of fire management on private lands.

Project objectives were to:

1. Identify landowner goals and knowledge, information exchanges, and practices on grazing native grasslands and potential impacts to water quality, wildlife habitat and soil loss.
2. Discover the barriers to private landowner adoption and implementation of different grazing management practices and prescribed burning strategies.
3. Explore attitudes, knowledge and beliefs about fire as a management tool for private landowners of oak savannas along the Middle Raccoon River corridor.
4. Design a process for creating local landowner groups that can increase communication and learning about the ecology of native ecosystems so that management practices aimed at restoring and maintaining these systems can be implemented without risking profitability goals.

What did we learn?

Surveying the Grand River Grassland landowners shows us where to start in creating a public agenda that links science to the social context of landowners within the historical tallgrass prairie region. This agenda requires public definition of the grassland at risk and a collective willingness to undertake management actions on private lands to protect it. This agenda cannot be set until landowners are able to articulate to each other the value of their grassland, the risk of eastern redcedar encroachment and some level of compatibility of agricultural production with prairie restoration goals.