

Wisconsin Department of Natural Resources

Buena Vista Wildlife Area

Management-intensive grazing with daily moves of the herd to improve habitat for grassland birds, increase plant diversity, and promote grassland health. One of multiple sites across Wisconsin.

Grasses rebound after grazing. Credit: Bill Kolodziej



Buena Vista Wildlife Area at a glance

RAINFALL

32 inches per year

PROPERTY DESCRIPTION

Grassland & scattered woodlands

PROPERTY SIZE

15,600 acres

ACRES IN GRAZING LANDS

720 acres

PLANNED GRAZING SINCE

2015

SPECIES

120+ head of cattle

GRAZING SEASON

May-October

PARTNERS

5-year contract with a private grazier who is also a grazing specialist

GRAZING PERIOD

1-2 days

DAYS OF RECOVERY

24-30 days

MANAGING FOR

- Improve wildlife habitat, especially grassland birds
- Reduce mowing and spraying and increase efficiency with financial resources
- Reduce brush and prevent succession
- Reduce invasive species
- Increase the health of the grassland through disturbance



Prairie Chickens thrive in grazed areas. Credit: Caleb G. Putnam

“The first year I saw one prairie chicken all season; the next year I saw 3 or 4; then last year I saw whole flocks of them in the fall.”

—BILL KOLODZIEJ, GRAZIER

Buena Vista Wildlife Area (BVWA) is one of the largest properties belonging to the Wisconsin Department of Natural Resources (DNR). The 15,600-acre site in central Wisconsin is one of the most extensive grasslands east of the Mississippi River. It hosts Wisconsin's largest population of Greater Prairie Chickens, a threatened species. Today, adaptive planned grazing is used on 320 acres to improve habitat for grassland birds. Daily moves of the herd of 120 cattle provide the desired mix of trampling and competition to reduce weeds and brush as well as creating a diversity of vegetation structure to encourage a wide range of bird species.

HISTORY

While livestock have been grazing BVWA for decades, in 2014 the DNR began a five-year pilot of management intensive grazing in partnership with a private grazer who is also a county-level grazing specialist with extensive practical and formal training around grazing. The acreage grazed under this pilot program doubled in 2018 from 320 to 640 acres based on both positive results and the addition of a new well and pumps that expanded the grazer's ability to extend drinking water to more pastures. The DNR has benefitted from several years of technical assistance from the non-profit-based Pasture Project. This partnership continues as the DNR expands grazing to other properties, invests in infrastructure, and employs a dedicated grazing coordinator.

WHY GRAZING?

A lack of disturbance was reducing habitat and fledging rates of grassland birds. Large areas of goldenrod and spiraea monoculture were smothering native species and brush was harder to manage each year. In an effort to restore ecosystem function to the pilot site, DNR Wildlife Technician Erin Grossman prescribed intensive planned grazing with daily moves as a tool to create structural diversity, a mix of cool and warm grasses, and undisturbed areas for nesting season. An

additional benefit was the time and cost savings associated with reducing mowing and herbicide spraying. These decisions were made in consultation with the private grazing partner.

WHO GRAZES?

Initially, DNR staff approached a county grazing specialist, Bill Kolodziej, to see if he would graze his herd of cattle on the site. Bill expressed "concerns about working with DNR wildlife people—fear that the wildlife staff would not give (him) freedom for grazing" the way he wanted to. These fears proved unfounded. Despite living a distance from the site, Bill agreed to graze his herd using daily moves to get the desired degree of trampling and to encourage cattle to eat undesirable plant species including young goldenrod and spiraea. Bill then inter-seeded red clover (on this site, red clover is not invasive) and other forbs into the grazed patches to improve the quality and quantity of forage for the cattle as well as the habitat for grassland birds.

Bill allows cattle to graze an area for 1-2 days to chew off seed heads and encourage vegetative growth. He provides 24-30 days of recovery between grazing events. While this site has abundant rainfall (32 inches), their cool-season grasses grow very slowly in the heat of mid-summer.

SUCCESSSES

Erin's DNR peers and supervisors already see the Buena Vista management intensive grazing pilot as a success. Though it has taken extra time to get the project set up, they expect it to take less time going forward and the results so far are good. In year two, the grazier doubled his stocking density and plans to further expand the herd in 2020. Now, thanks partly to the success of this pilot, the DNR is rolling out management intensive grazing at new sites across the state and has expanded from 890 acres grazed in 2017 to 1,700 in 2018. DNR staff expect to add 15 additional sites for 2020, which will expand their grazing to 6000 acres.

CHALLENGES

- Finding a grazier willing to move animals daily; this was a key element of Erin's management plan.
- Grazing starts during nesting season; avoiding nesting season would result in missing a valuable period of spring grazing. Grazing plans were adapted to minimize impacts on nesting birds.
- Developing a grazing plan aligned with hunting, fishing, and recreation.
- Creating a reliable water source for all of the pastures where grazing is desired; the initial gravity-fed system was replaced by a well and pumps that can move water more than a mile.
- The cost of engineering plans and permits required to install new wells.

Advice to other agency staff considering using grazing, from Erin Grossman:

“Projects need to move at the ‘Speed of Trust’—you need to have a trusting relationship

between agency staff and grazier.”

“The learning curve can be big for a project like this as we are not trained in livestock management.”

Erin also stressed the importance of doing some monitoring up front, including multiple soil tests, to have a benchmark for progress over time.

DNR Wildlife Technician Erin Grossman with grazier Bill Kolodziej. Credit: WI DNR

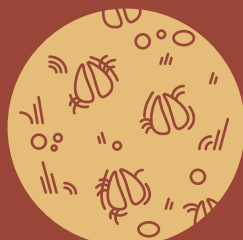


Benefits of adaptive grazing



Improve Bird Habitat

Grazing is being used to achieve a variety of plant heights and densities to support the habitat needs of different bird species.



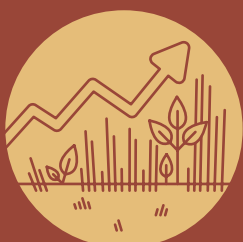
Reduce Brush & Forestall Succession

The cattle have reduced brush and trees on this site and helped to maintain grasslands.



Increase Plant Diversity and Reduce Monocultures

Grazing is being used to break up large stands of monoculture with a mix of trampling and eating.



Grassland Health

Increased growth and productivity from grazing boosted the forage quantity and allowed for a doubling of the herd size in the second year of grazing.

CHANGES & MONITORING

Greater Prairie Chickens: Preliminary research by the University of Wisconsin suggests that prairie chickens prefer sites with taller vegetation, and that they coexist well with management-intensive grazing.

Plant Diversity: This site had large stands of spirea and goldenrod with no grass; Bill successfully used intensive grazing to promote diversity by seeding forbs and warm season grasses immediately after grazing. Bill trained his cattle to eat species they normally would avoid by spraying plants with a mixture of molasses and water. The competition created by daily moves and dense herding also helped inspire this behavior.

Shrubs and Trees: Aspen tree density was reduced as a result of cattle knocking them down. This benefits prairie chickens by reducing perches for raptors who feed on chicks and also prevents the plant succession that would eventually return this site to woodlands. UW researchers documented that cattle reduced the prevalence of some species of shrubs.

Forage Quantity: An increase in forage quantity allowed for a doubling of the herd size in the second year of grazing. ■

Healthy cattle and healthy grasslands thrive together. Credit: Jacob Grace



“This management tool is adding to our toolbox, not taking anything away”

—ERIN GROSSMAN, DNR



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