Public Lands Grazing
Overview
and
Opportunities

Grazing as a Management Tool

The upland grasslands and interspersed wetlands of the Great Plains evolved under an intense disturbance regime that included drought, deluge, fire, and grazing by large herds of ungulates including deer, bison, and elk. Since these large herds of ungulates are no longer part of this ecological system, cattle are used as a surrogate to replicate vegetation disturbance and promote desired habitat conditions.

When cattle graze on vegetation, several critical actions occur, including the removal of above-ground biomass, stimulation of re-growth, and soil disturbance, to name a few. These resulting ecological processes promote diverse and resilient grassland and wetland vegetation communities that provide optimal habitat conditions for many priority species that rely on the habitats of south-central Nebraska.

Public land managers try to tailor grazing strategies to meet specific habitat objectives. These objectives are different between wetlands and uplands. Managers often use temporary electric fences to keep the livestock in a particular area to achieve certain habitat objectives.

Wetland Grazing

The majority of the public lands being grazed in the Rainwater Basin are wetlands. Public land managers have observed desirable plant responses to grazing. With the right timing and grazing intensity, undesirable plant species like reed canary grass, river bulrush, and cattails can be set back. To achieve a transition from dense stands of reed canary grass, river bulrush, and cattails, managers often try to graze as long and intensively as possible. Grazing at higher intensity creates bare ground and thereby allows desired species, including smartweed, bur-reed, barnyard grass, and spikerush, to germinate and flourish. If re-growth of undesired species and germination of desired species are limited, the wetland will provide open water and mud flats during spring and fall migration.

To achieve these objectives, managers try to achieve stocking rates of about 1.5 AUMs/acre, with some units as high as 6.0 AUMs/acre. An AUM equals the amount of forage a 1,100-pound animal consumes in a 30-day period. Public land managers work with livestock owners to achieve the optimum amount of grazing. If the property is very large for the owner's herd, cross fencing is used to reduce the size of the paddock and increase grazing pressure.

Upland Grazing

In upland grasslands, grazing is an effective management tool that promotes diverse native vegetation communities, including warm-season grasses, forbs, and legumes. These diverse native vegetation communities with a dominant warm-season grass component are favored by upland grassland birds, including upland game birds. These diverse grasslands not only support birds, but also a great variety of insects and invertebrates. Diverse grasslands attract other wildlife species such as rodents, which in turn attract prey species (mammals, reptiles, and birds).

Warm-season grasses are noted for having stronger stems which remain erect during winter storms. Cool-season grasses collapse after the first snow, forming a mat layer that offers little protection to game birds and other animals that depend on these habitats. Cool-season grasses, such as smooth brome and Kentucky bluegrass, are the first to emerge from dormancy and green up in the spring. Livestock select for this new growth; therefore, public land managers take advantage of this forage selection, and graze uplands during early spring. Grazing during this period reduces the vigorous growth of cool season grasses. Early spring grazing also removes detrital litter from the previous growing season, thus allowing more sunlight to reach the newly growing warm-season plants, and promoting faster growth. The stocking rate on uplands is about 0.75 AUMs/acre.

The duration and intensity of grazing are critical to achieve the desired management response. Uplands dominated by undesirable grasses are grazed longer, so that each plant is foraged on more than once. Plants subjected to frequent foraging are required to invest stored nutrients to regenerate new foliage, resulting in a weaker plant. Areas dominated by preferred grasses are grazed just long enough for each plant to be foraged approximately once. Then the area is allowed to rest from grazing. It is during the period of rest that grasses respond to grazing. The single forage event causes the plant to respond by building a larger root system. The larger root system allows the plant to capture more soil moisture and nutrients, resulting in healthier plants and vegetation community.

Becoming a Grazing Permittee or Cooperator

Both the Nebraska Game and Parks Commission and U.S. Fish and Wildlife Service (Service) own and manage public lands in the Rainwater Basin. The Nebraska Game and Parks Commission manages approximately 35 Wildlife Management Areas (8,400 acres), and the Service manages 59 Waterfowl Production Areas (WPAs) totaling approximately 23,000 acres. To successfully implement grazing as a management tool, public land managers are reliant on privately owned livestock to accomplish the goals and objectives. This requires a one-on-one relationship to be developed with each cooperator. Each agency employs a slightly different approach to develop relationships with local producers to facilitate grazing on their lands.

Nebraska Game and Parks Commission

General Guidelines

Nebraska Game and Parks Commission has several guidelines that are followed when developing a grazing plan for their properties. These include:

1. Grazing on upland pastures will be limited to once every two to three years, depending on habitat response.
2. Wetland vegetation may be grazed every year or every other year, depending on density of vegetation.
3. A second graze may be allowed/required in a year to control wetland vegetation density.
4. Grazing cooperators supply fencing and water. Most ponds in uplands will be restricted. Water in wetlands may be used, but may not always be available.
5. Grazing leases are for one year only - each area will be annually evaluated to determine necessity for grazing and duration.
6. Cooperation is essential in this type of lease. If it is not maintained the permittee will lose the opportunity for grazing.

Grazing Fees

The Nebraska Game and Parks Commission cost structure for grazing is established based on the state average according to University of Nebraska-Lincoln Nebraska Farm Real Estate Market Developments Surveys. Nebraska Game and Parks land managers summarize the Nebraska state average for several regions of the state (North, Northwest, Northeast, Central, East, Southeast, South, and Southwest). These rates are then applied to the corresponding Wildlife Management Areas in those regions. In 2012, the grazing rate applied to the Wildlife Management Areas in the Rainwater Basin was $32.90/Animal Unit Month.

To determine approximate fees, the average rental rate is multiplied by the Animal Units based on the following table.

Standard Animal Units

Livestock	Animal Unit
Cow (1000 lb.) and calf up to 3 months	1.0
Cow/Calf (3+ months)	1.3
Calf (3+ months)	0.3
Replacement heifers (24-36 months)	1.0
Cow (1000 lb) non-lactating	0.9
Two-year old steers	0.9
Yearling cattle (18–24 months)	0.8
Yearling cattle (12-17 months)	0.7
Horse (Yearlings)	0.8
Two-year old horses	1.0
Mature light horses	1.3

The Nebraska Game and Parks Commission recognizes that producers are integral to achieving effective grazing as a management tool. To compensate producers for the issues associated with grazing wetlands the Nebraska Game and Parks Commission uses a standard set of deductions from original grazing fee.

Deductions

1. Build electric fence -$1.00 - $4.00 (high tensile or premium fence).
2. Provide water -$0 - $5.00 (haul distance, multiple trips)
3. Rotation -$1.00 per rotation.
4. Short duration -$0 - $5.00 less than two months.
5. Forage quality -$0 - $25.00 (bulrush, cattail forage, noxious weeds, trees/underbrush, July 15 start-haying)
6. Access/size/location -$0 - $15.00 (small size of fields, remote location, difficult access.)

Selection of Permittee or Cooperators

The following protocol was approved by Nebraska Game and Parks Board of Commissioners to guide selection of a permittee or cooperator. Leases provide an important set of management tools that can

be utilized on State of Nebraska-owned properties. Cropping, haying and grazing leases allow field personnel to accomplish additional activities above and beyond their normal scope of work. Leases sometimes provide the only tool (i.e. grazing) for implementing adaptive management of these areas. Having the ability to select the right individual as a permittee will greatly benefit not only Commission field personnel, but the permittee and local community as well. Permittees will be selected using one of three options listed below:

A) High bid – Permittee will be selected based on high bid submitted, after no less than 2 weeks prior notice or advertisement in a legal newspaper of general circulation in the area where the grazing leases are to be issued.

B) The area manager will select a permittee based on the following criteria, provided the permittee is willing and able to comply with the terms and conditions of the lease as outlined by the area manager: (in order of preference)

1) Current or recent permittee participating in a rotational vegetative management system on wildlife management area, state recreation area or state park (if more than one interested party, draw name from hat).

2) Landowner or operator immediately adjacent to grazing/haying/cropping allotment (if more than one interested party, draw name from hat).

3) Landowner or operator adjacent to wildlife management area, state recreation area or state park, but not immediately adjacent to grazing/haying/cropping allotment (if more than one interested party, draw name from hat).

4) Other interested parties (if more than one interested party, draw name from hat).

C) Provide grazing rights to qualifying adjacent landowner through participation in grazing land exchanges or eligible grant programs designed for conservation.

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U.S. Fish and Wildlife Service

General Guidelines

The purpose for grazing on Service-owned lands is not for livestock production or revenue, but rather to economically manage the type and abundance of plants in WPAs. The grazing strategy used on WPAs differs between wetlands and uplands. The decision of what areas to graze each year depends on the current and desired plant community. Many factors affect plant response. They include: how well the root system is established; the intensity of grazing; soil moisture; and the amount of rainfall received before, during, and after the grazing season. We try to work out a wetland grazing scheme that provides optimum spring migratory habitat seven out of ten years.

A definition for "optimum migratory habitat" is hard to pin down; it varies with bird species. Northern pintails favor one water depth and vegetative composition and structure, while white-fronted geese favor another, snow geese another, and shorebirds as a group, still another. We strive for habitat which has abundant wetland plant seed, aquatic invertebrate substrate, and at least 50% open water when flooded one foot deep.

Grazing Fees

The grazing fee reflects the state average rate based on the United States Department of Agriculture Statistics Board publication 'Grazing Fee Rates for Cattle by Selected States and Regions' and is reassessed each year. In 2012 the grazing rate applied to WPAs in the Rainwater Basin was $26.60/Animal Unit Month (AUM).

To determine approximate fees the yearly grazing rate is multiplied by the Animal Units, based on the following table.

Standard Animal Units

Class of Animal	Animal Unit
Mature Cow	1.00
Cow-Calf Pair	1.20
Yearling (9-18 months)	0.70
Weaner Calf	0.50
Bull	1.50
Mature Sheep or Goat	0.20
Ewe w/lamb or Nanny w/kid	0.30
Horse or Mule	1.20
Bison	1.00

Deductions

The Service recognizes that privately owned livestock producers are an integral part in ensuring that grazing with cattle is a practicable management tool. To compensate producers for the issues associated with grazing on Service lands, we use a standard set of deductions from the original grazing fee. Discounts are given for installing temporary fences, hauling water, and performing land management practices on the property.

1. Installing and removing temporary electric fence -$6.24 / AUM
2. Watering of livestock -$5.73 / AUM
3. Standard deduction for all labor. Services include: -$16.00 / hour
    a. Repair boundary fence/gates
    b. Invasive species control – mechanical (hand chopping, weed whipping, chainsaw, etc.)
    c. Invasive species control – chemical (spot spraying weeds/trees, herbicide supplied by FWS)
4. Use of equipment (disking, shredding, cutting/stacking trees)
    a. Small farm tractor (less than 150 HP) -$25.00 / hour
    b. Large farm tractor (150 HP or larger) -$40.00 / hour
5. Mow parking lots $25.00/parking lot or $50.00 minimum

Selection of Permittees or Cooperators

The Service works with private livestock producers on a first-come, first-served basis. Currently the Service has a waiting list of livestock owners who wish to graze cattle on WPAs. When areas come open for grazing, local producers are contacted in the order in which they were added to the list. Interested parties are encouraged to contact the office so that they may be added to the list.

If current grazing cooperators follow the terms of the permit, pay their fees, and remove temporary fences and other materials, we give them first chance to graze in future years. The intent of this arrangement is to establish good grazing cooperators who understand and support grazing management for the benefit of wildlife habitat and migratory birds.

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