



# Multi-Species Grazing

By Scott Cotton, UNL Extension, Dana Larsen, USDA-NRCS and Jerry Volesky, PhD, UNL

The Nebraska Grazing Lands Coalition is a landowner-led partnership of grazers, organizations, federal and state agencies, and university staff that understand and work toward the enhancement of privately owned grasslands and grazing lands in Nebraska.

In an effort to conserve and improve those grasslands, coordinate cooperative assistance to landscape managers, and promote a stronger understanding of the value of grassland, this factsheet will discuss multi-species grazing principles and practices that enhance the ecological and social strength of grazing lands.

## HISTORICAL PERSPECTIVE

Geologic evidence and historic documentation demonstrate that a diverse group of herbivore species has always utilized the grasslands of North America for their sustenance and activities.

A number of ecologists feel the plant communities we are familiar with were developed by influences from soil type, climate, terrain and the types of herbivores that utilized each ecosystem.

Early populations of humans recognized and began utilizing a variety of grazing species to meet their survival needs.

Only in the last 100 years did livestock managers begin to focus on one or two specific species for grazing purposes. As the availability of transportation improved, producers themselves began to purchase goods and products from other sources rather than managing more than one species to generate what they needed at their own location.

They began to focus on the species they felt were the most profitable or easy – hence the reduction of “multi-species grazing.”

As ecosystem management challenges and market volatility have increased, once again producers have started to evaluate and utilize more than one grazing species.



## PHYSIOLOGY DIFFERENCES

Each grazing species has different preferences and habits that can be utilized to manage different goals. Combining several species in a grazing system can generate a symbiotic result that can change unused resources into additional profit and landscape health.

Ruminant species can utilize lower quality forages, and even forages that are dormant in winter. Ruminants have a wide variety of preferences that varies from lush grass, to weeds, to brush.

Major differences among all grazing species such as tooth configuration, herding habits, pressure per square inch of hoof, tolerance for rough terrain and tolerance for plant toxins provide options for a land manager to use a variety of species on the entire farm or ranch to provide more cost efficiency.

## Contact Us

**Nebraska Grazing Lands Coalition**  
coordinator@nebraskagrazinglands.org  
www.nebraskagrazinglands.org  
402.817.1131

**Nebraska USDA Natural Resources Conservation Service**  
www.ne.nrcs.usda.gov  
402.437.5300

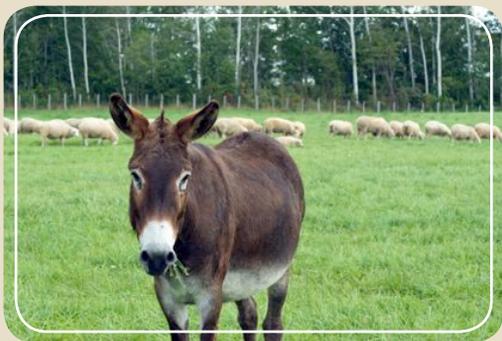
**University of Nebraska Extension**  
www.extension.unl.edu  
402.472.2966

## TARGETED GRAZING

Targeted grazing is the practice of using the characteristics of grazing species combined with prescribed grazing management to accomplish pre-determined goals and objectives.

These objectives may include a number of factors such as better use of landscapes, controlling weed infestations, capturing more income by developing another product, or changing a trend in landscapes.

Targeted grazing with multiple species tends to be more cost-effective and profitable than utilizing chemicals, manpower or capital investment to move toward the same goals.



## ECONOMIC & ECOLOGIC DIVERSITY

Landscape managers are always challenged to generate enough funds to implement the improvements they would like to have on their operations.

Utilizing multi-species grazing can reduce input costs while generating a secondary and/or tertiary set of incomes. These income streams often are not tied to the same schedule or market volatility as previous markets, which allows a landscape manager to buffer and supplement the income stream. It also can provide options to shift, delay or hedge the income from the primary species when the need arises.

## CONSIDERATIONS

All managers should evaluate their landscape, operation and preferences before considering the use of multi-species grazing to determine what species and level of integration would enhance both the landscape and improve economic viability.

Contact the Nebraska Grazing Lands Coalition or your local University of Nebraska Extension educators or USDA Natural Resources Conservation Service representatives for more assistance with multi-species grazing. These professionals can provide valuable information, resources and often cost-share funds, or put you in touch with a producer already utilizing multi-species targeted grazing.

Examples of multi-species targeted grazing programs are:

- Using goats to browse oak-brush to allow more grazing space and water yield from upper pastures.
- Free-range grazing hogs to keep them cleaner, reduce snake populations and acquire an “organic” certification with pork while cleaning fields behind dairy herds.
- Using sheep to enhance horse pasture by thinning sage-brush and eating some toxic plants which do not affect them.
- Using donkeys and llamas as both guard animals for sheep and goats as well as generating their own product.
- Using goats to reduce noxious weed populations in riparian areas and enhance the grass production for sheep, wildlife and cattle.

## EXAMPLE

Mr. Jones was spending \$200 per acre in herbicides to spray 100 acres of weed-infested pasture each year. This also created an opportunity cost of not having access to the land for \$3,000 dollars of grazing for dairy cattle (a \$23,000 annual cost). He decided to buy and use 200 goats (\$50 each = \$10,000) to graze the weeds. After four months the weeds were held back and he could graze the untouched grass (\$3,000 value). He saved the herbicide cost (\$20,000 value) and generated 180 kid goats, which he sold for \$25 (\$4,500 income). Knowing that he could resale the original goats for \$10,000, Mr. Jones decided to keep them since he had a return of \$27,500 for his \$10,000 investment. He also expected another \$27,500 cost/income the next year with no further investment and could now re-emphasize the “natural” production of milk with no use of herbicides.

