



Planned Grazing Demonstration Fact Sheet 2015

LOCATION: BROOKDALE SITE

START DATE: JUNE 2015

STATUS: IN PROGRESS

Measuring the impact of planned grazing on forage, soil and cattle health and productivity

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Background

It is hypothesized that planned grazing (commonly referred to as intensive grazing or mob grazing) will increase soil, forage and ultimately animal health and production. However, this management style can require some time and resources to set up and manage, which is likely why it isn't widely adopted yet. According to the Western Canadian Cow-Calf Survey collected in 2015, "Intensive grazing was practiced by 11% of respondents on tame pasture and 2.7% of respondents on native pasture."¹

Planned grazing is designed to have short grazing periods, high stocking density and a full recovery of the plants before being grazed a second time. Recovery periods are adjusted (60 to 90 days is targeted) based on monitoring forage growth, environmental conditions and animal performance.

This project will compare two types of grazing: planned grazing and rotational grazing. It is hypothesized that in the initial years the performance of the cattle will stay relatively similar between the two grazing styles but a significant improvement in soil health and forage production will result.

Objectives

- To compare the impact of planned grazing and rotational grazing on soil health and forage productivity.
- To determine the time and resources required to implement and maintain both grazing styles.
- To demonstrate the advantages and disadvantages of planned grazing and rotational grazing strategies.



Pam Iwanchysko (MBAG) explains the grazing plan on a tour of the sites in September of 2015.



Cattle on the planned grazing demonstration project wait to be moved to fresh grass in the next paddock. This picture was taken in September of 2015.



Batt latches, portable solar powered automatic gate release timers, were used to move cattle between paddocks.

Planned grazing	Rotational Grazing
25 cow-calf pairs	25 cow-calf pairs
94 acres	97 acres
19 paddocks	7 paddocks
Both native and tame pasture	Tame pasture only
121 grazing days	121 grazing days

Samples included:

- Soil nutrients
- Soil health
- Cattle weights
- Forage yield



Andrea Hamilton (summer student) collects a forage sample on the planned grazing pasture.

Planned grazing could be a powerful tool to improve the land's resilience to environmental extremes, its carrying capacity and ultimately the producer's bottom line.

Project design and methods

A grazing plan was developed for the grazing of two herds of 25 cow-calf pairs on a planned grazing and rotational grazing system. Paddocks were set-up with temporary electric fencing on perennial summer pastures. An extensive above-ground solar-powered watering system was also installed.

Tame forages included a mixture of Meadow Bromegrass, Orchard grass, Timothy, Creeping Red Fescue and Cicer Milkvetch. The native pastures consisted of Western Wheatgrass, Northern Wheatgrass, Slender Wheatgrass, Green Needlegrass, Big Bluestem, Little Bluestem, Side-oat Grama grass, Switch grass and Indian grass.

What did we find?

The first year of grazing, in a long-term grazing study such as this one, is used for collecting baseline values. These baselines can then be used to compare between future grazing years. Therefore, little can be interpreted from the first year's production values in relation to the effect of grazing management styles.

The lower gains recognized in the planned grazed cattle were likely due to the differences in forage types, rather than any effect of the actual grazing styles. The tame pastures were more nutrient dense (TDN 67%; crude protein 25%) whereas the native pastures were less nutrient dense (TDN 59%; crude protein 8%).

Description	Average daily gain (lbs/day)
Rotational cows	1.79
Planned cows	0.88
Rotational calves	2.55
Planned calves	2.34

Key Messages

Baseline soil and forage values were collected during this year of the study and will be used for future comparisons.

Between the Project Lead, Core Partners and the Research Advisory Committee it was determined that a greater contrast was needed between the grazing management types compared and, an improved distribution of grazing between tame and native fields was needed. Therefore, the planned grazing will be compared to continuous grazing rather than the current rotational grazing and the pattern of grazing will be modified. The goal of this change is to be able to see a more reliable and apparent difference in soil and forage health between management styles in future study years.

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References:

1. Canadian Western Cow-Calf Survey – Aggregate Results 2015. Western Beef Development Centre.

