

# AGRISYSTEMS



## FACT SHEET



# ROTATIONAL GRAZING

Rotational 'grazing' is a management strategy for livestock that involves systematically and periodically moving animals between different paddocks or sections of a pasture. The primary goal is to optimize forage utilization, promote pasture health, and enhance overall land productivity. This approach contrasts with continuous grazing, where animals have unrestricted access to a single pasture area for an extended period.



## Implementing a Rotational Grazing System

The first step in setting up a rotational grazing system is setting management goals and assessing your resources. The success of rotational grazing systems relies on how much capital is available to cover the costs of starting a grazing system, availability of pasture, forage species currently in the pastures and the general condition of the pastures. The additional costs of rotational grazing may include the cost of internal fences, additional watering points, or increased hours of labor.

The pasture is sub-divided into smaller paddocks or grazing areas. The number and size of paddocks depend on factors like the type of forage, livestock stocking rates, and the desired grazing rotation. Fencing is used to define and separate paddocks. Portable or temporary fencing systems allow for flexibility in adjusting paddock sizes and shapes based on forage growth patterns and livestock needs. Fencing should allow for lanes for livestock movement from one paddock to any other paddock, water sources or to the barn without moving back through a previously grazed paddock or through a rested paddock.

*The Alberta AgriSystems Living Lab (AALL) is utilizing a participatory action research model to support Alberta's producers to adopt beneficial management practices (BMPs) including **Rotational Grazing**. Our team of researchers from the University of Alberta (UoA), Agriculture and Agri-Food Canada (AAFC), subject matter experts and consultants are measuring the impacts of these BMPs on the profitability and environmental sustainability of the whole farm. AALL is led by the Alberta Beef Producers collaborating with over 16 other livestock, crop and environmental organizations aimed at improving the sustainability and resilience of Alberta's livestock, crop and forage producers. For more information, please visit our website at [agrisystemsll.ca](http://agrisystemsll.ca).*



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### Grazing and Rest Periods

Controlling the amount of time a paddock is grazed is just as important as leaving adequate rest periods between grazing. If the grazing period is too long, newly grazed plants may grow back to be grazed again within the same grazing period and can be damaged. Ideally, use short grazing periods. Cattle graze selectively, they will eat the highest quality forage when first turned out onto a paddock and then forced to eat lower quality forage each day they remain in the same paddock. They also tend to eat more when first turned out onto a fresh paddock. If cattle are leaving excessive forage, you may wish to decrease your paddock size instead of lengthening the grazing period. Alternatively, you can increase the stocking rate or make hay in other paddocks. Controlling target stubble height on rotationally grazed pastures maximizes forage regrowth and extends the life span of the pastures. Overgrazing can severely damage forage growing points and deplete stored energy necessary for regrowth and winter survival, resulting in loss of desirable forage species and encroachment of weeds.

### Stocking Density

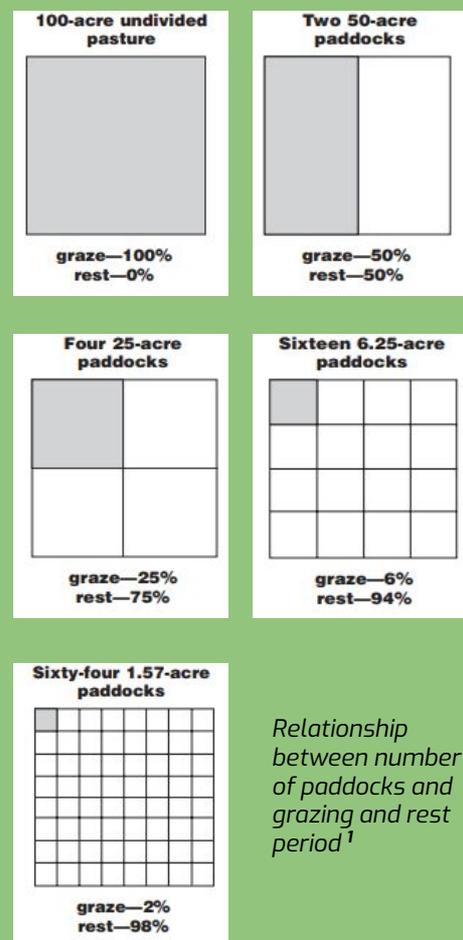
Stocking density is the number of animals on a particular piece of land at a given point in time. Concentrating the herd in one paddock at a time translates into a high stocking density. Using small paddocks also increases stocking density. A high stocking density increases competition for feed between animals, forcing each to spend more time eating and less time wandering. Competition also forces animals to be less selective when grazing. They will eat species of plants that would be ignored in other grazing systems. This results in a reduction of less desirable plant species in the pasture.

### Fencing and Laneways

Good fencing is necessary in rotational grazing systems. The fencing system should usually include a permanent perimeter fence as well as permanent or movable fences to separate paddocks. Fencing should allow for lanes for livestock movement from one paddock to any other paddock, water sources or to the barn without moving back through a previously grazed paddock or through a rested paddock.

### Water Management

Efficient water distribution within the grazing system is important. Providing water sources in or near each paddock helps ensure that livestock have access to fresh water without concentrating in one area.



### (Potential) Benefits of Rotational Grazing

- Improved forage utilization
- Increased pasture productivity
- Improved soil health through forages and manure distribution.
- Enhanced erosion control
- Better animal health

### Adapted from:

1. *Pastures for Profit: A Guide to Rotational Grazing.*
2. <https://www.beefresearch.ca/topics/grazing-management/>

#### KEY ELEMENTS OF THE ALBERTA AGRISYSTEMS LIVING LAB

Producer-led practice change implemented on-farm in real-life setting.

Practices backed by sound scientific principles.

Strong partnerships with producers, researchers and industry organizations

Measure impacts of practices to improve overall sustainability