

#24-11 October 2025

Rotational Grazing: *Extending the Grazing Season, Water Systems and Funding Opportunities*

Rotational grazing offers more than just dividing pastures into smaller parcels. It can extend the grazing season, reduce winter feeding days, and make better use of forage resources available on the farm. For producers, this approach may mean lower feed costs, improved pasture productivity, and in some cases, additional hay to sell.

Rotational grazing is a widely adopted practice across Canadian beef operations. According to the 2021 Canada-wide Farm Environmental Management Survey, 74% of beef producers utilize some form of rotational grazing, highlighting its role as a common forage management strategy. Similarly, the [Alberta AgriSystem Living Lab: 2022 Baseline Adoption Rates Survey](#) found that of 208 respondents, 69.2% implemented rotational grazing during the 2022 season, managing 57.1% of total reported pastureland under this system. While adoption is relatively high, this indicates that rotational grazing is often applied to only a portion of available pasture acres.

Patterns of use varied among producers. Most rotational grazing began in May (44.7%) or June (35.0%), with October (51.2%) being the most common endpoint. The grazing period ranged from 48 to 244 days, averaging 145.3 days, which was not statistically different from the average of 135.6 days reported for continuous grazing. Approximately half of producers (49.0%) reported resting paddocks for 30–60 days between grazing events, and cattle movement was managed either on a time-based schedule (49.7%) or according to forage availability (47.6%). Of those following a set schedule, the most common frequencies included moving cattle once per week (17.9%) or once every two weeks (11.7%). Triggers for moving herds most often included 50% forage utilization (37.2%) or 80% utilization (35.9%).

Despite the widespread adoption of rotational grazing, several barriers limit its expansion. Nearly half of producers (48.4%) identified water access as the primary challenge, while others cited up-front

What is the COP Network?

The Canadian Cow-calf Cost of Production Network (COP Network) uses standardized data collection which allows for comparison both within and between provinces, and internationally. Since launching in 2021, the COP Network has collected data from over 235 producers contributing to 64 cow-calf benchmark farms that represent various production systems. Each benchmark is based on data from 3-7 producers. Data collection occurs every 5 years with annual indexing of input and output prices, as well as crop and forage yields, in subsequent years. Individual benchmark farm summaries, can be found at: <https://canfax.ca/resources/cost-of-production/cop-results.html>

investment costs (10.9%) and reluctance to use electric or portable fencing (9.4%). These findings suggest that while rotational grazing is common, it is often constrained by resource availability and infrastructure limitations.

Part 1: Do Productivity Gains Pay for the Infrastructure?

To evaluate rotational grazing, the COP Network developed scenarios for 11 benchmark farms using 2022 data. The analysis assumed that producers invested in a portable electric fencing system in the first year to divide pastures into multiple paddocks, while continuing to use existing water systems. The cost of fencing was considered similar across herd sizes, meaning that the per-cow cost was lower for larger operations.

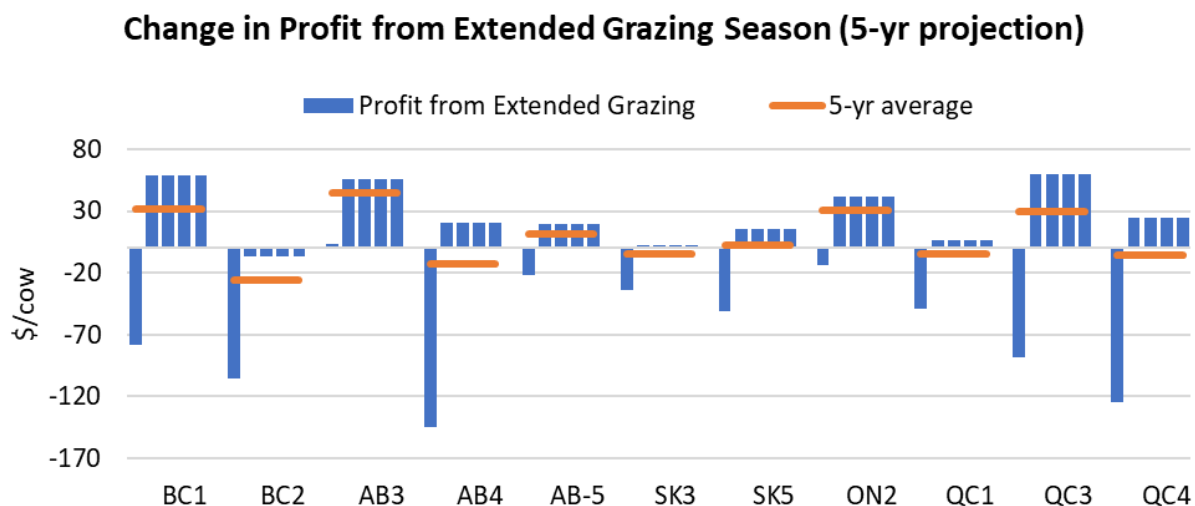
Stocking rates were expected to improve by 10 percent under rotational grazing. However, producer experience and research suggest that the actual range is much wider—from as little as 5 percent to more than 60 percent depending on forage species, stand age, soil type, fertility, and moisture.

The primary benefit of rotational grazing was assumed to be fewer winter feeding days due to increased pasture productivity which allowed for an extended grazing season. For some operations, this also meant more hay was available. If hay was sold in the baseline year, that surplus was treated as additional revenue; if not, it was carried forward into the next year as extra feed inventory.

Measuring progress is often like watching grass grow. While it's difficult to detect movement on a daily basis, it's simple to see growth over time. - Frank Sonnenberg

What Producers Experienced

As shown in Figure 1, across the 11 benchmark farms, only about half were able to pay off the fencing investment within the five-year analysis (orange lines above zero). Those that succeeded had three main advantages: larger herds, higher baseline feed costs, or additional revenue from hay sales.



*Blue bars represent the change in profit per cow for years 1 through 5. The negative value in year 1 reflects the impact of the initial investment.

Figure 1. Change in Profit from Extended Grazing Season

Larger herds were able to spread the cost of fencing across more cows, reducing the average investment per animal. Farms with higher feed costs — measured in dollars per head per day — saw more savings by reducing the number of winter-feeding days. For example, savings were most significant for farms relying on purchased feed, where every day of extended grazing lowered costs. Some operations also captured additional income from selling hay no longer needed for feeding, while others improved their resilience by carrying forage over to the following season.

Notes for Chart:

- BC1: Additional revenue from selling hay, despite small herd
- BC2: Small herd, low baseline feed cost
- AB3: Larger herd, additional revenue from forage sale
- AB4: Small herd
- AB5: Large herd
- SK3: Larger herd, but low feed cost
- SK5: Medium herd, low baseline feed cost, additional revenue from forage sale
- ON2: Cost saving on purchased feed
- QC1: Medium herd, low baseline feed cost
- QC3: Cost saving on purchased feed
- QC4: Small herd

Smaller operations faced more challenges in paying off the investment within the five-year period. However, if their feed costs were high or if they could generate revenue from surplus hay, rotational grazing still offered a meaningful return.

What it Means on Your Farm

The results underline that rotational grazing is not a one-size-fits-all solution. Large herds can recover costs faster because the fencing expense per cow is lower, and farms with higher feed costs see greater benefit from every additional grazing day. Smaller herds may face challenges with payback, but if they have high feed costs or can generate revenue from selling surplus hay, rotational grazing may still be worthwhile.

The best way to control cow and sheep is to give them a big grazing field.
- Shunryu Suzuki

Flexibility can also make a difference. Producers who opt for lower-cost fencing systems or creative pasture layouts may see better results. The analysis reinforces that knowing your own costs — both feed and infrastructure — is key to deciding whether rotational grazing makes sense for your operation.

Key Takeaways

- Portable fencing is the largest upfront investment, with total costs similar across herd sizes. Larger herds reduce the cost per cow.
- Stocking rates were assumed to increase by **10%**, but actual results reported by producers range from **5% to over 60%**.
- Only about **half of the 11 benchmark farms** were able to pay off their fencing investment within **five years**.
- Farms with **higher feed costs per head per day**, especially those relying on purchased feed, saw the greatest cost savings.
- Operations that sold hay in the baseline year could capture **additional revenue** from surplus forage, while others built carryover reserves.
- Soil type, fertility, forage species, and age of the pasture stand all impact results.

Part 2: Water That Works Harder

Adding a water system to a rotational grazing system isn't just about convenience, it can influence calf performance and the initial investment can be partially offset by funding opportunities. How does portable fencing, water systems, and cost-share programs stack up in terms of costs and benefits? The results show both the challenges and the potential for profit.

The Setup: Fences, Pumps, and Pipelines

The 2022 analysis looked at six benchmark farms: AB-8, AB-11, MB-3a, MB-3b, QC-6, and QC-7. Each farm added portable electric fencing, a solar-powered water pump, and a shallow-buried pipeline system to support rotational grazing.

Key assumptions included:

- Longer grazing season achieved through improved management.
- Calves gaining an extra 0.09 lb/day with the water system, compared to direct dugout access.
- Farm-specific funding assumptions through the On-Farm Climate Action Fund (OFCAF), with 70–85% reimbursement of eligible costs.

You can make money two ways - make more or spend less.

- John Hope Bryant

The Bottom Line: Gains and Losses

Without funding, the net benefits were generally negative over five years due to the high upfront cost of water systems. This was most challenging for farms with large pasture areas needing long pipelines, or smaller herds where costs per cow were higher.

One exception was QC-7, where savings on purchased feed and fewer winter-feeding days resulted in a positive net benefit even without funding.

When OFCAF funding was applied, the economics changed. Four of the six farms were able to make the scenario feasible with the reduced upfront cost.

Adding in the stacked benefit of heavier calves made the scenario profitable for most farms, though AB-11 saw a reduced price per pound because heavier calves shifted into a lower-priced weight category.

Estimated Average Net Economic Benefit over Five Years

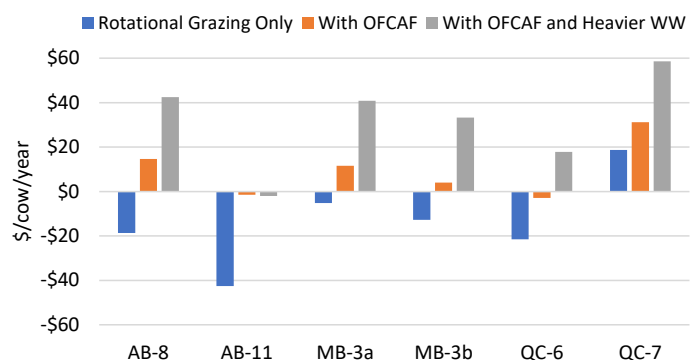


Figure 2. Estimated Average Net Economic Benefit over 5 Years

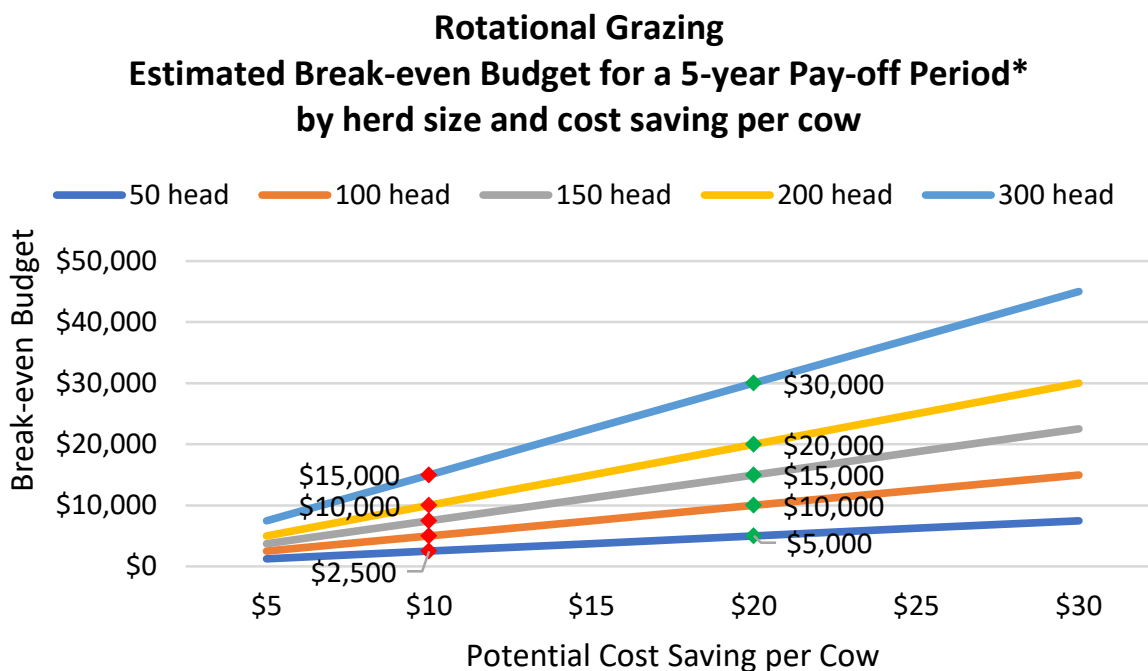
Notes:

AB-8: In Alberta, with 161 cows, 1,465 acres of grassland
AB-11: In Alberta, with 133 cows, 1,863 acres of grassland
MB-3a: In Manitoba, with 270 cows, 1,040 acres of grassland
MB-3b: In Manitoba, with 270 cows, 1,107 acres of grassland
QC-6: In Quebec, with 150 cows, 156 acres of grassland
QC-7: In Quebec, with 225 cows, 156 acres of grassland

Don't wait for the right opportunity: create it. - George Bernard Shaw

What It Means on Your Farm

The feasibility of rotational grazing with water systems depends on four things: upfront investment, herd size, savings from fewer winter feeding days, and potential revenue gains from heavier calves. For example, a 200-cow operation saving \$20/cow on feed could justify an upfront investment of \$20,000 and still expect a five-year payoff.



Farms without an existing water system stand to benefit the most, since installing one can boost calf performance in addition to grazing savings. Programs like OFCAF reduce the financial risk and help producers move ahead with grazing infrastructure, but details vary by province. Contacting the [local delivery agent](#) is essential for understanding coverage, requirements, and application steps.

Key Takeaways

- Water systems combined with rotational grazing can improve calf weights by 0.09 lb/day and reduce number of winter feeding days.
- High upfront costs make the system challenging without additional funding sources.
- The stacked benefits of funding, feed savings, and heavier calves made the scenario profitable for most farms.
- Herd size and per-cow savings determine how much investment is realistic — e.g., \$20,000 over five years for 200 cows saving \$20/cow.



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