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GRASSROOTS NEWS & VIEWS October 2026

Director's Note—Laura Buss

Greetings FFGA Members

Fall has officially arrived! There's a thick layer of harvest dust in the air, frosty mornings, and plenty happening across the province.

October is, without a doubt, my favourite month. It's an incredibly busy time of year for many, and with the autumn equinox now behind us, we're heading into shorter days and longer nights. There's something special about this time of year as we make the most of the last lingering light and energy of summer - finishing up those final jobs, helping neighbours and friends, and getting ready for winter.

Across the province, persistent rain has put harvest behind in many areas, making for a challenging fall. Meanwhile, with fall gather and weaning keeping producers busy, cattle markets are being closely watched.

Before long, things will slow down and we'll settle into a quieter and (hopefully) more restorative season. In the meantime, I'm looking forward to plenty of fall riding, enjoying all the seasonal cooking, and trying to embrace the chaos that comes with this time of year.

As always, FFGA is staying busy with several events coming up this fall. With producers keeping a

close eye on cattle markets, we're kicking things off with a free KLR Marketing Webinar on October 5th.

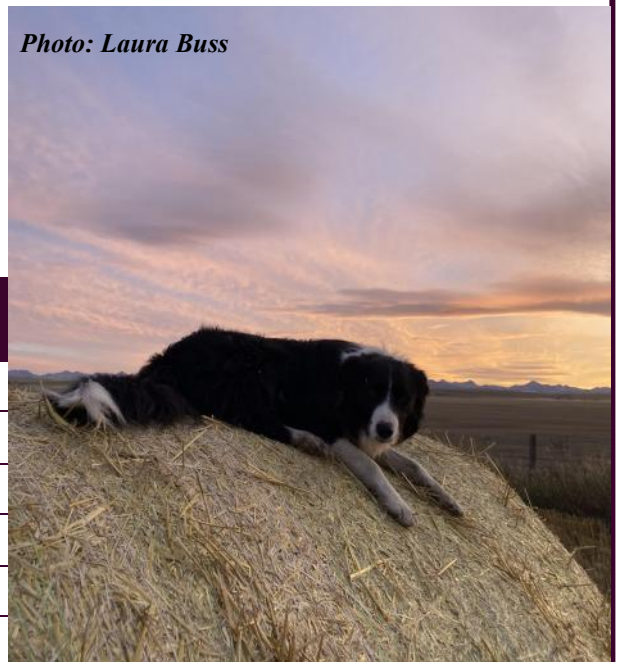
We also have an On-Farm Innovations Bus Tour on October 15th, featuring several stops and a broad range of topics, including virtual collars, beaver coexistence, and water management. The tour will also include a visit to Waldron Ranch, with discussions around prescribed fire and other land-management practices.

And, of course, we're ramping up toward the Western Canada Conference on Soil Health and Grazing in Edmonton, December 8th–10th. If you're planning to attend, don't forget that early-bird pricing ends October 31st!

Wishing you a safe, productive and happy harvest season,

Laura Buss

Photo: Laura Buss



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On the Cover: FFGA's Stockmanship School at Gemstone Cattle Co. Photo: FFGA

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Corn Grazing Strategy Cuts Winter Feed Costs



Photo: FFGA

With drought affecting many agricultural regions, cattle producers are facing serious feed challenges heading into fall and winter. According to Aaron Berger, Nebraska Extension Educator, reduced pasture growth, poor forage production, and lower hay yields have created concern about how livestock herds will be fed during the colder months.

Many producers are now exploring new ways to make the most available feed resources.

One option gaining attention is grazing cattle on a combination of standing corn and harvested corn residue. This approach may help extend grazing opportunities while reducing overall feed costs.

Corn residue, which includes husks, leaves, stalks, and cobs left after harvest, has long been used as a feed source. A common guideline suggests that every 100 bushels of corn yield can provide approximately 25 to 30 grazing days for a 1,300-pound cow through residue consumption alone.

However, adding controlled access to standing corn can significantly increase available feed. By allocating a measured amount of grain each day, producers may increase total grazing days by 1.5 to two times compared to residue grazing alone.

Corn has become one of the more economical energy sources

available for cattle feeding. While forage prices remain high due to drought conditions, grain prices in many regions are near production costs. This creates an opportunity for producers to use standing corn as a valuable feed ingredient.

Cows coming off drought-stressed pastures often need to regain body condition before winter and calving. A feeding system combining corn grain, residue, and appropriate supplements can support weight gain while providing energy and nutrients during a critical period.

Experts suggest cattle should gradually adjust to grain consumption over seven to ten days to reduce the risk of digestive issues. Protein, minerals, vitamins, and feed additives may also be included to help meet nutritional requirements.

The economics of this strategy can be attractive. Producers may avoid some grain harvesting and hauling expenses while still obtaining value from the crop through direct grazing. Leaving corn standing can also provide an advantage during snowy conditions because ears remain accessible above snow cover.

Another benefit is nutrient recycling. When cattle graze directly in the field, nutrients contained in both the grain and residue are returned to the soil through manure and urine. This can contribute value to future crop production.

Successful implementation requires planning. Grazing areas should be allocated carefully to ensure cattle receive the intended amount of grain and residue. Temporary fencing systems, portable power units, and well-designed grazing layouts can improve control and efficiency.

Some producers are also evaluating virtual fencing technology. These systems allow cattle movement to be managed electronically while maintaining traditional perimeter fencing for security.

Feed cost comparisons highlight the potential savings. A ration built around standing corn and residue may cost significantly less than feeding purchased hay and supplemental feeds with similar nutritional value.

Although leaving standing corn in the field may seem unusual to some growers, current forage shortages and feed market conditions are encouraging producers to consider new management practices. For operations facing limited hay supplies, combining standing corn with residue grazing could become an effective way to maintain cow conditions, extend feed resources, and control winter feeding costs.

As producers prepare for harvest, evaluating feed needs, corn availability, and grazing opportunities may help determine whether this strategy fits their operation. With drought continuing to affect forage supplies, maximizing the value of every acre will remain a key priority.

Author: Farms.com

Original Article: <https://www.farms.com/ag-industry-news/corn-grazing-strategy-cuts-winter-feed-costs-722.aspx>

Wray Ranch: Legacy of Innovation



Photo: FFGA

There is no question that Linda and Doug Wray are innovators in agriculture. They have earned Provincial and Federal Environmental Stewardship awards, leadership awards, and even the King Charles III Coronation Medal. Doug speaks with admiration of influential agriculture producers like Dan and Todd McKinnon and Francis Gardner, who do not withhold information on their best practices. Doug is one of those men too – looking beyond himself

and saying “Let’s all do it better.”

Doug Wray’s grandfather came to the Irricana area in 1910, and by 1950 he had four sections, one of the largest farms in the region. His goal was not to expand or keep the farm intact; the goal was to ensure each of the nine kids received some land of their own. Seven of the nine kids did farm the land at some point, including Doug’s father, Eldon.

When Doug grew up, the family business was crops. His father, Eldon and two uncles worked the farm together with Doug’s grandfather. A retirement and a death left Eldon and one brother remaining at the farm. After university, Doug returned home with the intention of someday farming himself. He was an ideas man and considered it a win if he could get one of every ten ideas past his dad and uncle! The opportunity to purchase some land came up quickly and Doug was farming in the home area again. Doug and Linda’s farm

grew substantially when they eventually added on some of the land that his dad and uncle had each once farmed.

Doug and Linda soon realized it was just too big a job for them to farm this land with just the two of them. Partly because of limited manpower and partly because they enjoyed cattle so much, in 1998 Doug and Linda converted 1,000 acres of farmland to tame pasture and the farm became Wray Ranch. Linda laughs as she tells the story because, at the time, they didn’t realize it was such a bold move! However, they do remember feeling that the neighbours might think they were “nuts” to grow pasture instead of canola.

“Everyone around here has done something innovative” Doug says. But he felt a little more out of the box than most. In the 1990s the Alberta Forage Council put on a grazing conference, which is where, he starts talking about his involvement



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with organizations such as the Foot-hills Forage and Grazing Association (FFGA), Agriculture Research and Extension Council of Alberta (ARECA), Canadian Forage and Grassland Association (CFG), and more. More than implementing innovative and unconventional practices, Doug has dedicated decades to sharing knowledge through his extensive involvement in various organizations, noting that the FFGA board meetings provided a comforting and collaborative environment for unconventional ideas. This spirit of experimentation is further illustrated by Linda and Doug's decade-long practice of treating field chaff with water and ammonia to produce winter livestock feed. It was a practice that worked very well for them when they needed it. Linda says "It's the willingness to try something new" and Doug says that willingness is what he got from university. He raises a hand low to the table and says that university "moved the horizon from here." He then jumps his hand up a foot, "to here." The legacy of trying something new continues.

At times, each of their three children has worked on the land or had intent of taking it over. Doug and Linda speak with incredible pride of their children and grandchildren. All the kids have found success, some in their own agriculture operations and some in other areas of work. Doug marveled at how one of the girls

could analyze, think on her feet and fix water and electric fence issues without calling for help. They speak of how another child, at three years old, could identify a cow without seeing the tag number. They speak with pride about their grandchildren, praising how well they are raised and the character they each show. Doug noted that you cannot control who your kids pick for spouses but that "the kids all hit home runs with their partners." All three have made successful lives away from Wray Ranch.

When Linda and Doug had a young family, Doug's brother lived next door and between the two families there was a workforce of seven kids! The succession plan was not always clear until his nephew, Tim Wray, approached him.

Tim showed a passion for the land and soil. As Doug said, "Passion carries the day." Tim and Doug started working together, with Doug leaning more and more on Tim's ideas as their partnership continues. Doug talks with admiration about how Tim can make the Excel sheets "dance" and how Tim and Joanne are now raising their kids on the ranch. Tim and Doug's diverse ways of thinking create a successful hybrid approach that serves them both well. To illustrate the point, Tim put auto steer in the tractor and did all the programming and electronics...Doug built the mounting bracket.

Tim now manages Wray Ranch but has other vocations as well. Doug

continues to ranch full time with Tim. He says the days are shorter and Linda can have more voluntary involvement now. Both the Wray ranchers have ideas of how to complete the succession into the next generation or so, but as Doug says, you can only plan so far into the future.

From a long line of teachers and educators, Tim has an innovative spirit and passion for collaboration just like his predecessors. "He got me out of ruts I didn't know I was in", says Doug. One of Tim's latest innovations is the use of virtual fencing collars to support his grazing strategies. The AMP grazing program for the herd worked so well that they were able to bring some neighbours' cattle in to graze down the excess grass.

Legacy has little to do with things like a business, cattle and land. The legacy we inherit is the values that allowed those "things" to exist in the first place. Whether it is a willingness to change, a commitment to community, pride in family, or simply the courage to forge a path of your own, it is clear that the Wray family's greatest legacy is not what they leave behind, but what they instill in those who come next.

Author: Lori-Anne Forbes
FFGA Regional Extension
Coordinator

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Seeding Cover Crops Aerially Can Boost Grazing Potential



Photo: FFGA

Stored hay can be a livestock producer's best insurance, says University of Missouri Extension plant science specialist Caleb O'Neal, who is also a cattle producer. It provides flexibility for cattlemen to rest pastures in the event of drought and is often the feed of choice for winter herd maintenance.

O'Neal's goals for his own herd include being able to actively graze high-quality forage most of the year, but he relies on hay as a backup option "when grazing pickings are slim."

High-quality hay can be made with favorable weather and good management.

"But in many cases, the hay that we as producers make is cut too late in the season and has poor feed value," he says.

For a longer grazing season, many producers either manage their established forages differently or plant specific forage species that grow during times of the year that traditionally have limited forage availability. Many of these species are popular in cover crop seed mixtures.

Cover crops can provide an excellent opportunity for livestock producers to extend their grazing season, O'Neal says.

"Planting cover crops between cash crops like corn and soybeans is a widely adopted practice across the state, and while these annual cover crop species are frequently planted for the benefit they provide to the soil, their planting also opens the door to outstanding opportunities for graziers

who are willing to think outside the box," he says.

Many cover crops that are planted to maintain soil structure during the off-season can also provide unparalleled forage quality for livestock producers at a time of year that aligns very well with the forage base relied upon by most cattle producers in the state, he says.

Many producers are familiar with the excellent forage that cereals like wheat and rye can provide in early spring. But, historically, it's difficult to achieve a grazeable cover crop in the fall on the same ground you're using for cash crops because the cash crop grows late into the season. By the time it is harvested, there is little time to get a cover crop established and growing strong enough to tolerate fall grazing.

However, modern technology like utility drones can help producers "double dip" by establishing cover crops earlier in the season and achieve both fall and spring grazing from the same piece of ground, says O'Neal.

Aerially seeded cover crops can be seeded earlier in the season—late August through September—while the cash crop of corn or beans is still standing in late maturity. Cover crop seeds flown over the cash crop canopy will work down to the soil and slowly emerge in the protected space provided by the standing crop of corn or beans.

"The magic happens when the cash crop is harvested and the dense canopy is removed, allowing sunlight to be captured by the already established young cover crop below," says O'Neal.

The cover crop that has been seeded and growing for several weeks wastes no time in being productive. With adequate fall moisture, it will likely be ready to graze in late October through November.

Grazing cover crops in the fall lets livestock producers rest cool-season pastures to accumulate winter stockpile fescue, which holds forage quality well and can then be grazed in the dead of winter.

Common cover crop mixes for aerial seeding include small-seeded brassicas like turnips and radishes, but there are also few plants that can put on as much growth for fall grazing as a spring oat, O'Neal says. Forage species like this when paired together make for exceptional fall and early-winter grazing.

For fall and spring grazing from the cover crop mix, be sure to select the correct forage species to aerially seed. Most species of oats will winter-kill, so throwing a winter-hardy cereal like rye or triticale and a legume like crimson clover in the mix can help ensure there is high-quality forage available to graze in March and April the following year.

"Aerially seeding cover crops can be an excellent way to extend the grazing season and make the most of every acre. With land prices climbing faster than a cornstalk in June, maximizing the productivity of the ground we already have just makes sense," O'Neal says.

"If we plan ahead, we can establish high-quality forage that not only supports the nutritional needs of our herds but also reduces our reliance on costly stored feed. When implemented correctly, grazing cover crops in the spring and fall is a win for the livestock, the land and our bottom line," he says. "With the right forage species and adequate moisture, aerial seeding can help producers reduce feed costs, improve herd health and get more value from every acre."

Author: University of Missouri

Original Article: <https://www.drovers.com/news/beef-production/seeding-cover-crops-aerially-can-boost-grazing-potential>



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Cattle can help rebuild degraded pasture



The best tool for rebuilding worn-out Prairie pasture may have four legs instead of four wheels.

The concept comes from long-term research suggesting cattle can often rebuild degraded pasture more effectively than steel and diesel.

Standing beside a pasture that had once been considered worn out, University of Saskatchewan professor Bart Lardner challenged decades of conventional thinking.

“Cows have teeth. So why are you doing that,” he said during a field day in August, hosted by Farm One Forty owners Brett and Arlie LaRoche and SaskSoil.

After nearly three decades of research, Lardner said cattle can often do a better job of restoring degraded pasture than tractors, manure spreaders and other machinery.

Instead of hauling feed to cattle and manure back to fields, producers can allow cattle to harvest feed where it’s needed, naturally returning nutrients to depleted land while cutting labour and fuel costs.

Lardner’s nearly 30 years of research at the Western Beef Development Centre consistently showed bale grazing can dramatically improve forage production while rebuilding soil health.

“We saw a two to three fold increase in forage biomass just because we bale grazed cows out there,” said Lardner, who is also the Ministry of Agriculture Strategic

Research Program Chair in Cow-Calf and Forage Systems.

Those results came from long-term studies that compared three winter feeding systems: traditional dry lot feeding, bale processing and cattle grazing directly on strategically placed hay bales across tired Russian wild rye pastures.

The data was difficult to ignore. Bale grazing consistently produced more forage while improving soil fertility, outperforming both conventional dry lot feeding and bale processing.

The cow doesn’t just harvest the feed. It also delivers the fertilizer.

For generations, Lardner said producers have relied on machinery to transport feed to livestock and later haul manure back to fields.

The process is expensive and loses valuable nutrients along the way, particularly nitrogen.

When cattle remain on pasture, however, those nutrients stay where they are needed most.

“The ruminant digestive system is not a very efficient system. Only about 10 per cent is retained by the critter, but 90 per cent is secreted through the urine and the fecal material,” he said.

“What an opportunity to take advantage of manure nutrients.”

Soil tests showed two to three times more available nitrogen after bale grazing, helping explain why forage production soared.

Just as importantly, those nutrients remained where cattle deposited them instead of being lost during storage, handling and manure spreading.

The research also changed Lardner’s view of something he said many producers consider a problem.

After cattle finish bale grazing, fields are often covered with scattered hay residue.

Where some producers see leftover forage as waste, Lardner sees another crop.

“I do not call it wastage. That is residue, which allows for a slow composting process over time,” he said.

The blanket of straw and chaff protects the soil surface, captures small rainfall events, reduces soil temperatures during hot Prairie summers and gradually feeds soil micro-organisms as it decomposes.

“It’s litter. It retains those little one-tenth rainfalls. It keeps the soil temperature from going up on those high heat days, and it’s going to decompose and release those nutrients over time,” he said.

He said years after the original research plots were first bale grazed, the old bale rows remained visible through darker green, more vigorous strips of forage.

Today, Lardner sees the same pattern developing on commercial farms across Western Canada where producers are deliberately targeting poorer, nutrient-deficient areas of pasture.

“They’re finding that nutrient-deficient acre of land where that rejuvenation needs to happen,” he said.

Besides forage production, current studies are also examining how grazing systems affect water infiltration, soil biology, carbon storage and drought resilience.

“My mind is, how can we capture every little one-tenth rainfall?” said Lardner.

Every decision about grazing management, he added, influences

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the biological community beneath the soil surface.

He said producers' attitudes are slowly changing, but many remain more comfortable starting a tractor than letting cattle do the work.

Lardner estimates more than one in five Prairie cattle producers now use some form of bale grazing, although every operation requires its own adjustments for stocking density, feed quality, water supplies and shelter.

"I've seen producers perfect it over the years," he said.

"It's a great system. It's a no-brainer."

However, he said some abandon bale grazing after poorly planned attempts, while others practise what he jokingly calls "pseudo bale grazing" by hauling out a single bale each day rather than placing bales in advance and controlling access with fencing.

The research may be convincing, but changing habits has proven harder.

After many presentations, younger farmers approach Lardner with the same question.

"So many times when I do a talk ... at the coffee afterwards, I have the son or the daughter come up to me and say, 'Bart, how do I get Dad to change? How do we get Grandpa to quit starting that darn tractor?'"

Various technologies may eventually make adoption easier, he said.

Virtual fencing could allow producers to shift grazing boundaries electronically instead of moving temporary electric fences, although Lardner says more on-farm testing is needed before drawing firm conclusions.

Whatever technology develops, successful grazing systems still requires producers to spend time watching their cattle.

"One thing I find about critters is they'll tell you the story. You put the animals out there, watch them for 24 to 48 hours ... and then you adjust the grazing, more or less," he said.

He also cautions against setting up extensive winter grazing sys-

tems and assuming cattle will simply figure everything out on their own.

"You need to manage and monitor based on environmental conditions," he said.

After nearly 30 years studying the interaction between cattle, plants and soil, Lardner believes the biggest lesson is also the simplest.

"The beef cow is far more than a livestock species," he said.

Managed properly, it becomes one of agriculture's most effective nutrient recyclers, moving fertility precisely where it is needed while reducing machinery, fuel and labour.

"They're seeing that this is an unbelievable rejuvenation tool to really put nutrients back in that marginal soil that's probably been overgrazed," he said.

Author: William DeKay

Original Article: [https://](https://www.canadiancattlemen.ca/livestock/cattle-can-help-rebuild-degraded-pasture/)

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What soil aggregate stability does for your farm

Photo: FFCA



Good organic matter and microbial activity in the soil are critical for profitable and sustainable crop production. But without stable aggregation, that can be very hard to achieve.

WHY IT MATTERS

Soil aggregates are the clumps of soil particles, bound together, that form the building blocks of soil structure.

The good news: the more soil is covered, the more protected soil aggregates will be.

In Ontario, soil aggregate stability — that is, the soil's capacity to handle different forces like wind, water or tillage — ranges from 65 per cent to 98 per cent. Generally speaking, sandier soils have lower aggregate stability than clay loams.

Soil aggregation matters for several reasons. First, they protect soil organic matter by holding onto organic matter particles and delaying how long it takes for soil microbes to break them down. This translates to higher levels of soil organic matter — itself another critical element of healthy soil — for a longer period.

Second, the nooks and crannies between and around soil aggregates

also provide homes for soil microbes. Like housing for people, the more living places you have, the larger and potentially more diverse the community will be.

Perhaps the most important thing soil aggregates do, however, is reduce water stress.

"If you've got pounding rainfall hitting exposed soil, we know the impact that raindrop has. It breaks up aggregates, and we start to see crusting. Once you see crusting, you have all sorts of issues like poor infiltration and seedling emergence," says Laura Van Eerd, Charlotte Products chair in Net Zero Soil Management, co-director of Soils at Guelph and a professor at the University of Guelph, Ridgetown.

"With good aggregate stability,

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you'll see less ponding, and it will be able to handle extreme weather better."

Keep soil covered

If exposed soil is vulnerable to aggregate deterioration from water and wind, keeping it covered with either living plants or dead crop residues is the solution. The interesting thing, says Van Eerd, is current research shows only 30 per cent of the soil surface needs to be covered to achieve protection from the elements.

"Thirty per cent coverage is very achievable. Even with wind erosion, it helps with sandy soil," she says, adding studies have shown both living and dead plant residues provide similar protection.

"Your soil is the biggest investment — and biggest resource — on the farm. It's about protecting your asset. We wouldn't leave anything else lying around unprotected."

Though not necessarily a fit for all farm operations, perennial crops, such as forages, can also have a significant positive impact on aggregate stability. Van Eerd says they bring the added benefit of simultaneously feeding soil microbes almost year-round.

How to measure soil aggregate stability

Measuring aggregate stability can be as simple as picking up a chunk of soil and seeing how easily it breaks apart

"Does it break into smaller crumbs or large hard chunks that turn to dust? That's what you don't want," Van Eerd says. "You can also use a watering can to pour over the soil to watch how those aggregates break up."

In the lab, aggregate stability can be measured in several ways, including putting soil on a screen and applying force, such as dipping it up and down in water or shaking it. Whatever is left on the screen is water-stable aggregate. Standard

practice under the Soil Health Assessment and Plan (SHAP) is to make 30 strokes per minute to a depth of four centimetres.

There is also a rainfall simulation test and a method involving "slakes," where a small piece of aggregate is added to a pool of water and timed for how long it takes to break apart.

Each of these tests can also be performed on the farm. The advantage of a lab test is that you have numbers to compare soils or practices.

"I'm all for getting people interested in their soil. Farmers know what works. They tell me after doing good crop rotation — with cover crops and winter wheat in the

rotation — and less tillage, they see less ponding. They save money on diesel by pulling bigger equipment with less horsepower," says Van Eerd.

"And in those years with too much or too little rainfall, they're still pulling 60-bushel beans. That, to me, is the value of investing in your soil."

Author: Matt McIntosh

Original Article: <https://farmtario.com/crops/what-soil-aggregate-stability-does-for-your-farm/>



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What happens inside the gut when cattle eat less?



Photo: FFGA

Periods of reduced feed intake are common in beef production systems. Newly weaned calves, transported cattle, newly received feedlot calves, heat-stressed animals and cattle battling disease often consume less feed than normal. In newly received feedlot cattle, dry matter intake may drop to 0.5 to 1.5 per cent of body weight during the first week after arrival before returning to about 2.5 per cent.

When cattle go off feed, the immediate concern is reduced nutrient intake and its effect on growth, production and recovery. However, reduced feed intake affects much more than performance. Changes in feed intake can alter rumen

fermentation, nutrient absorption and gut barrier function.

The severity and duration of an off-feed event can influence how cattle respond. Research by Koralie Lambert at the University of Saskatchewan provides some insight (Lambert et al., 2026a and Lambert et al., 2026b). In these studies, beef heifers received just 30 per cent of their normal feed intake for five or 10 days, similar to restrictions seen during transportation, illness or severe weather.

Digestive changes occurred quickly, and cattle on the longer restriction took more time to regain normal feed intake once full feeding resumed.

Reduced feed intake

The effects of reduced feed intake begin in the rumen. When cattle eat less, rumen fermentation slows and the production of short-chain fatty acids declines. These fatty acids are major products of ruminal fermentation and are an important source of energy for ruminants.

In the Saskatchewan studies, restrict-

ing cattle to 30 per cent of normal feed intake for five or 10 days reduced ruminal short-chain fatty acids by 40 to 50 per cent, demonstrating how rapidly fermentation activity responds to lower feed intake.

A significant portion of short-chain fatty acids are absorbed through the rumen lining. Because these fermentation products support tissues involved in nutrient absorption, prolonged feed restriction can reduce nutrient absorption.

The effects extend beyond the rumen. Prolonged periods of reduced intake decrease tissue mass in regions of the gastrointestinal tract and may reduce liver mass. In the small intestine, reduced intake has been associated with changes in nutrient transporters that may affect nutrient absorption after refeeding.

Effects on the gut barrier

Absorbing nutrients is only one of the gastrointestinal tract's jobs. The digestive tract must also serve as a barrier, allowing nutrients

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ENVIRONMENTAL FARM PLAN (EFP) WORKSHOP

EXCITE LETHBRIDGE
101 EXHIBITION WAY S, LETHBRIDGE, AB T1J 4R3
NOVEMBER 4, 2026
7:30AM - 12:00PM

WORKSHOP DETAILS:

- Workshop registration will be at 7:30am
- Coffee & snacks will be provided
- Please bring a laptop or tablet
- Please bring information on your water sources & water bodies if you have them
- If you are renewing your EFP and you have your old binder, please bring it as this can be helpful

Please register before October 28, 2026

TO REGISTER VISIT:

<https://workshopEFP.eventbrite.ca>



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to enter the body while restricting the movement of potentially harmful compounds.

This barrier can respond surprisingly quickly to reduced feed intake. Studies have shown that short periods of low intake can increase gut permeability, allowing more compounds to move across the gut lining.

The recent studies at the University of Saskatchewan found increased post-ruminal permeability after both five and 10 days of severe feed restriction. The response occurred regardless of whether cattle were restricted for five or 10 days, suggesting gut barrier changes occur rapidly once intake declines.

At the same time, the gut appears able to protect itself during feed restriction. Changes in genes and proteins suggest the digestive tract adapts to help maintain normal function during nutritional stress.

Back on feed

Getting cattle back on feed presents its own challenges.

After a period of low intake, the rumen has adapted to reduced nutrient supply. When feed intake suddenly increases, rumen microbes have more feed to ferment, producing more acid. If acid builds up faster than the rumen can handle it, rumen pH can decline.

The recent studies at the University of Saskatchewan are a good example. Heifers restricted to 30 per cent of normal intake for 10 days consumed less feed during the first week after refeeding than unrestricted cattle and spent considerably more time below a ruminal pH of 5.5. Cattle restricted for only five days showed an intermediate response. These findings suggest the period immediately after refeeding may represent a risk for digestive disturbances.

Fortunately, the gut is highly adaptable, and different aspects of gastrointestinal function recover at different rates. The same research showed that many measures of gut function, including barrier function, returned to normal relatively quickly once cattle resumed normal feeding. By the second week after refeeding, feed intake and most measured indicators were mostly normal.

Why does this matter?

A period of low feed intake is more than a temporary reduction in feed consumption. It changes the environment in

which ruminal microbes operate, reduces fermentation activity and can affect gastrointestinal barrier function.

Importantly, the consequences may continue even after cattle return to the bunk. Recent research shows that longer periods of severe feed restriction can delay recovery of feed intake and increase susceptibility to low ruminal pH during the refeeding period.

For producers, this reinforces the importance of minimizing prolonged off-feed events and closely monitoring cattle returning to normal intake after transportation, illness or weather-related disruptions.

The digestive tract has a remarkable capacity to adapt and recover, but that recovery is influenced by both the severity and duration of the challenge. When cattle eat less, the gut does not

simply have less work to do. It changes. Understanding those changes may help identify management strategies that better support cattle during both the off-feed period and the return to normal feeding.

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Original Article: <https://www.canadiancattlemen.ca/nutrition/cattle-off-feed-gut-changes/>



Alberta Lamb Producers

ANNUAL GENERAL MEETING AND CONFERENCE

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