



## Extending Your Grazing to Reduce Feeding Costs

Winter feeding is the biggest cost in a cow/calf livestock operation. Reducing feed cost will improve the profitability in a cattle operation. Extended grazing using stockpiled (second or third cut), swath, corn, stubble, chaff or bale grazing allows livestock to return most of the nutrients they consume directly to the landscape, compared to confined feeding. Feed costs can be comparable to traditional winterfeeding, but yardage and feeding costs are lower, as are manure removal costs. Manure and feed residues contain valuable nutrients that will fertilize future annual or perennial crops.

With many types of extended grazing, electric cross fencing will minimize waste and improve utilization. A powerful electric fence is necessary for optimal livestock control in winter since snow is a good insulator along with portable reels and wire. Portable windbreaks are movable, affordable in-field shelter, but may not be adequate in extreme winter conditions with a high wind chill. Additional shelter may be required to provide optimal protection.

## Stockpiled Perennial Forage

Perennial forage that is grazed or cut earlier in the growing season, and the regrowth saved for late-season or early spring grazing, is referred to as stockpiled forage. Typically, the first or second cut is harvested as hay, and re-growth is grazed after, or close to, killing frost. Grass/legume mixtures are better suited than pure legume stands to decrease the risk of bloat, and grasses retain their leaves better after a frost.

Alfalfa/grass mixtures can be grazed moderately in the fall, close to or after a killing frost, with minimal impact on the winter survival of the alfalfa. Second cut alfalfa/grass harvested in mid- October can be mid-teens in protein and low 60's in total digestible nutrients (TDN), which will meet a lactating cow's requirements.

## Feed Contains Valuable Nutrients

When you bale graze, unroll bales, shred bales or feed in rings, nutrients are being added to the land from the feed. A 1,250-lb. bale of alfalfa/grass hay at 14 per cent protein contains approximately 24 lbs. of nitrogen, 2.5 lbs. of phosphorus and 21 lbs. of potassium. Livestock only capture a small percentage of these nutrients (15 to 20 per cent), so most of the nutrients are returned to the land. For both economical and environmental reasons, we want to capture and utilize as much of the imported nutrients as possible. Site selection to minimize leaching (coarse textured soils) and runoff is critical for this to occur.

**Bale grazing** can involve all the bales being placed in the fall or hauled every seven to 10 days during the winter. If the bales are all placed in the fall, electric cross-fencing helps to control feeding and to minimize waste. Another option is to place the bales in existing paddocks and move the cattle between paddocks according to how long the feed lasts. Bales should be spaced 30 to 40 ft. apart to allow adequate access for the feeding animals and to keep nutrient importing at a moderate level. A bale spacing of 33 ft. in all directions equates to 40 bales per acre.



**Swath grazing** of annual crops can take place in fall, either before or after freeze-up. Most annual cereals should be cut at the early to mid-dough stage (barley) for highest quality and yield (oats late milk). Swath grazing during a wet fall should wait until after freeze-up to improve utilization and to decrease waste. Stubble grazing can make use of uncropped areas, straw aftermath and volunteer re-growth that is high quality for protein and energy. An annual crop producing two to three-tonnes of dry matter per acre will produce 113 to 168 cow grazing days per acre, for a 1,300-lb. cow, assuming 20 per cent waste and residue.

**Grazing standing corn** produced 318 cow grazing days per acre (1,300-lb. cow) at the Manitoba Beef and Forage Initiatives (MBFI) Brookdale site from 2016 to 2021. The average yield was 5.6 tonnes of dry matter per acre, the protein was 7.5 per cent and the TDN was 75.7 per cent. For either corn or bale grazing, moving cattle every three to four days and using electric cross fencing minimizes the amount of waste and labour required and helps control grain overload. Another option is to graze corn stover in the fall. The lower feed value of the corn stover requires more supplementation, making it better suited for dry cows. When growing corn, optimize fertility and weed control to achieve high yields which is critical to offset the high cost of production.



### Economics and Analysis

At MBFI, over the six years of an extended grazing study, on average, grazing the second cut was the most economical form of extended grazing each year. It was practised at \$1.03/cow/day, followed by corn at \$1.89, bale at \$2.64 and swath at \$2.67. Grazing hay fields in the fall is one of the most economical methods of extended grazing, considering the cost is for fencing and the standing forage value. In comparison, Manitoba Agriculture's cost of production for feeding a beef cow traditionally averaged \$3.64/hd/day. Of this total, yardage averaged \$1.44/hd/day. One of the big savings in extended grazing is the yardage, especially with bale grazing where the feed costs are similar to traditional feeding.

### Summary

By utilizing a variety of extended grazing methods, MBFI has shown that beef cattle can be economically kept out of confined areas all winter long in Manitoba. The cattle were fed on the landscape at a cost saving, and maintained cow body condition. Valuable nutrients left on the land improves soil fertility and will increase future forage or crop growth. Extended grazing is a viable feeding method to reduce manure disposal cost, cut winter feeding cost and reduce yardage cost.

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### Making Silage!

Many producers have switched to making silage as a suitable winter feed. Silage offers the opportunity to put up a high quality feed with minimal losses due to the weather. However, low quality silage can be a problem when producers do not understand the whole silaging process, so it is imperative to ensure one puts up silage at the correct stage and preserves it well.

To maintain high quality silage, the harvesting period should be completed as quickly as possible. Delays could affect the moisture content and quality loss. Ensure that the forage is at the correct moisture content when you are about to begin. One way of determining this is using the microwave method.



1. Weigh an approximate 100 gram sample of the forage, excluding the weight of the container.
2. Spread the weighed forage sample on a paper plate or place it in a paper bag and put it in the microwave oven.
3. Place an eight-ounce glass of water (3/4 full) in the oven, beside the sample to prevent it from igniting.
4. Heat at 80-90 per cent maximum power for four minutes
5. Remove the sample and weigh it.
6. Continue to re-heat it in two-minute intervals, re-weighing each time. To prevent burning, use lower heat and 30-second intervals. If the weight of the sample does not change after a couple of attempts, it will be 100 per cent dry. A slightly charred sample will not affect the accuracy of the moisture determination.
7. Calculate the moisture content as follows:

$$\text{Moisture Content} = \frac{(\text{Weight 1} - \text{Weight 2})}{(\text{Weight 2})} \times 100$$

$$\text{For Example } \frac{(100-36)}{100} \times 100 = 64\% \text{ Moisture}$$

As a general rule of thumb, most moisture contents should be between 55 to 65 per cent moisture for the highest quality and quick fermentation to a stable product. For more information, please see the following: [www.manitoba.ca/agriculture/crops/crop-management/grain-corn/when-to-harvest-corn-silage.html](http://www.manitoba.ca/agriculture/crops/crop-management/grain-corn/when-to-harvest-corn-silage.html)

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## Good Record Keeping. Why It Matters!

Accurate record keeping and reporting are important factors in ensuring AgriInsurance contract holders are insured for the full value of their forage crops.

**Why it matters:** At MASC, we insure four types of forage. Each type carries a different level of coverage and premium. When a Seeded Acreage Report is received, it is critical that the forage crop type and acres are reported accurately. Recording a field as one type of forage, when it really should be a different type, can drastically affect a producer's coverage level.

Record keeping inaccuracies of each field can greatly impact your individual coverage. Reporting all fields as three bales to the acre could potentially lead to lower coverage on alfalfa/grass and increased coverage of grasses. Averaging a lower value crop across all your production acres may result in less coverage than the value of your crop. Recording each field separately is the only way to ensure coverage that accurately represents the farm's forage crop.

One of the most common reporting errors is when a producer is not in a claim position and does not record production correctly. This ends up limiting their potential future coverage increases. This also applies to non-insured forage crops listed on a Seeded Acreage Report. Reporting non-insured forage fields accurately helps determine future coverage.

Reporting **carryover production** is important to differentiate new production from previous year's production, so it does not negatively affect a claim.

Recording forage types and numbers enables MASC to provide advance payments to producers prior to adjusting the forage crops. Accuracy of reporting is essential and has the potential to benefit producers with an increase in advanced money and limiting the chance of overpayments.

**When and how to report:** Reporting can be initiated in mid-August online using *myMASC*. The deadline to file a forage claim without late fees is Oct. 3 Accuracy is important to determine the potential of a claim and future coverage. Producers without a *myMASC* account can contact an MASC Service Centre to have an account set up. Producers in a potential claim position will be notified when the form is submitted. If you have any questions, please contact a MASC Service Centre.

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## Creep Feeding - The Silent Profit

Creep feeding supplementary grain or concentrates to beef calves on pasture before weaning is an option for livestock producers. It is best considered when milk production for calves is low or when pasture quality is declining. Creep feeding increases nutrition for growing calves - better nutrition translates to better weaning weights. It also helps train calves to go on feed sooner when they are weaned. The biggest question is: Do those extra pounds of weight pencil a profit?

Creep feeding is not always economically feasible for producers. The decision to creep feed should start with knowing all the associated costs. These include the initial (purchase) cost and depreciation of the feeder, the cost of keeping the feeder full of grain or pellets and the time required to monitor and fill the feeder during typically busy months of August through October.

The economics of creep feeding come down to knowing the projected market prices for heavy calves. Creep feeding is attractive when calve prices are high enough to offset the associated costs. While calculating returns, producers should consider the price slide for heavy calves. When the discount price margins between the heavy and lighter calve weight classes are narrow, creep feeding becomes even more profitable.

Manitoba Agriculture has developed a Creep Feed calculator to assist producers to evaluate profitably before embarking on a creep feeding regime. The calculator utilizes projected feeder market prices and current cost prices. With its data, Manitoba Agriculture is projecting a \$63 profit per head.

In this example, Manitoba Agriculture assumes creep feeding oats to calves for 90 days average a daily feed intake of 3.5 lbs. The aim is to achieve a 545 lb. weaning weight which is 45 lbs. heavier than calves not creep fed. Calves are fed a ration of oats costing \$324/tonne. Producers can also use or add pellets, but that will add to the cost of feeding.

In the model, the daily creep feed cost of gain is \$0.51/lbs. which works out to be \$46.29 per head for the feeding period. Additional costs including feeding equipment and expenses, and labour amounting to \$14.51 for a total of \$60.80 feeding cost per head.

Manitoba Agriculture projects the fall calf market price to be \$330/cwt for light calves, and a \$10/cwt market price slide discount for heavy creep fed calves, which translates to \$325.50/cwt market price for heavy calves. Gross income of \$1,774 and an estimated net income of \$1,713 per head. The analysis shows a net return of \$63 per head, meaning that this season, it is worthwhile to creep feed calves and earn an extra four per cent return on investment, compared to not creep feeding. Even though the projections by Manitoba Agriculture are showing a profit, it is critical that producers use their own production and revenue estimates so that they get a true picture of their profitability.

In conclusion, the economics of creep feeding calves in Manitoba can offer significant benefits to cattle producers. By strategically supplementing the nutrition of nursing calves, producers can enhance weight gain, capitalize on market fluctuations, and promote healthier herds with reduced veterinary costs. However, successful implementation requires careful evaluation of feed costs, labour, and equipment investments to ensure a positive impact on overall profitability.

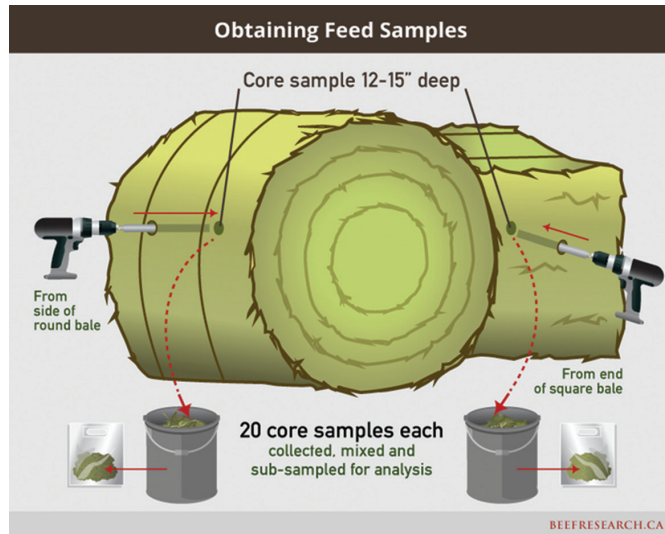
The Manitoba Agriculture Creep Feed Calculator is available at <https://www.gov.mb.ca/agriculture/farm-management/production-economics/pubs/calculator-calfcreepfeed.xlsx>



## How to Feed Test

Feed represents the largest single production expense for cattle operations. Producers should feed test not only to evaluate the nutritional quality of feeds but also to be able to meet nutritional requirements of all classes of livestock. Proper nutrition can mitigate and prevent health issues, and ultimately save money by reducing overfeeding or preventing underfeeding.

- Use a commercial core sampler
- Core sub-samples in 15 - 20 bales of hay per field
- If hay is fed by cutting then sample each cut
- Sample square bales from the end and sample round bales on the rounded side of the bale at the centre
- Make every effort to include both leaves and stem
- Insert probe at 90° angle - 30 - 46 cm (12 - 18") deep



It is important to feed test your feeds, know what you have and what you need to supplement. There are many by-product feeds that also need to be tested. If you are unsure about the possibility of feeding a by-product to your animals, check with your local nutritionist or contact your local MASC Service Centre Office.

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## Feed listing Service

Did you know that Manitoba Agriculture coordinates a free hay, straw and pasture listing service? Contact your local Manitoba Agriculture and MASC Service Centre to list or look for hay, straw or alternative feeds for sale on the hay listing. The service is free and can be found at:

[web31.gov.mb.ca/haylistcintextrnl](http://web31.gov.mb.ca/haylistcintextrnl)



# You're invited to

## Manitoba Beef and Forage Production Conference Working On the Farm with Hands-On Science!

**December 12 and 13, 2023**

**Victoria Inn, Brandon Manitoba**

*Manitoba Agriculture, Manitoba Beef & Forage Initiatives and Manitoba Beef Producers invite you to attend this inaugural event.*

### Conference presentations include:

**Smart Farm Technology** - Dr. Susan Markus, Livestock Research Scientist, Lakeland College

**Key Findings from the Canadian Cow-Calf Surveillance Network** - Dr. John Campbell, Western College of Veterinary Medicine, University of Saskatchewan

**Setting Up a Grazing Plan** - Anneliese Walker, a Grazing Success mentor for MaiaGrazing, a market-leading grazing management software solution.

### Breakout topics include:

Pasture Rejuvenation; Using Implants in Beef Production; Calving Troubleshooting; Intercropping for Forage Production; Farm Transition; Beef Nutrition and more...

Each breakout technical presentation will be paired with a producer presentation to show how the science can be applied on farm.

And an evening Banquet featuring Lewellyn Melnyk - Author, farmer and mental health advocate, a journalist by trade and a farmer by choice.

**For conference details and to register visit [www.mbf.ca/conference](http://www.mbf.ca/conference)**

For more information contact: 1-844-769-6224, [agriculture@gov.mb.ca](mailto:agriculture@gov.mb.ca)



If you would like to be added to our information-sharing list, please email or text Juanita Kopp ([Juanita.Kopp@gov.mb.ca](mailto:Juanita.Kopp@gov.mb.ca), 204-825-4302). Your input or topic ideas are always welcome.

## Contact us

- Go to [manitoba.ca/agriculture](http://manitoba.ca/agriculture)
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