

Beef and Forage Technical Bulletin



Forage - Alternative options to feed the cow herd - Take inventory of feed supplies and livestock requirements

Overall feed supplies are better in 2020, but below normal precipitation in much of the province and no spring carryover means areas are still deficient of forages. This will result in producers either being short of feed, or will be very tight, depending on the winter. In feeding cattle, they can be fed a wide variety of different feedstuffs, as long as the ration is properly balanced. If you need to stretch the feed supply, you want to start sooner rather than later. When developing feeding strategies for your herd, you need to have a basic understanding of the cow production cycle, you need to know and prepare for changes in cow nutritional needs and you need to plan the feeding program. Feed testing is important to balance the ration to meet animal requirements, especially when using alternative feed sources. What is the feed quality and are there any nitrates in the annuals (oats, barley, millet greenfeed)? Stress caused by drought or frost can cause nitrates to accumulate. Along with tame or wild hay, off quality grains, greenfeed, pellets, straw, screenings, silage, vegetables and more can all be fed to cattle. If you haven't done so already, you need to take an inventory of your feed supplies and livestock numbers. How many bales of hay, straw, tonnes of grains do you have available? That means weighing the bales if you don't know their weights. How many head will you be feeding, for how long and what do they weigh? In the end, you need to determine if your feed supplies are equal to your livestock needs. If not, do you buy feed, sell livestock or have them custom fed? The goal of a livestock producer is to keep feed costs down as it is the single biggest expense in keeping a cow herd. But you still have to meet the cow's nutritional requirements as poor nutrition will affect both production and reproduction.

Farm Business Management

The Farm Business Management team has completed the 2021 cost of production (COP) updates for cow-calf, backgrounders, replacement heifers, and finishers. There have been major changes to the cow-calf budget. This year, a 300 cow-corn silage ration budget was added, with a full cost analysis, on five different pasture options, including marginal and improved pastures. The principal and interest payments for fixed costs were added; and the total debt per cow was added including the debt servicing payment. The Beef Cattle Research Council's (BCRC) five per cent rule for profitability (as presented here) is also part of the COP worksheets.

Silage and hay budgets are provided with added calculations to help you decide when to use custom harvesters versus harvesting the feed yourself. Find the COPs at: www.manitoba.ca/agriculture/farm-management/production-economics/cost-of-production.html.

Livestock

A precision rancher is someone who recognizes that agriculture operates on small margins, utilizes every technology, production practice and management technique that is appropriate for their climate, soil zone and production system in order to maximize their profits. Producers make dozens of decisions every season to support the reproduction and productivity of their cowherd and the quality and yield of their forages, knowing that there are trade-offs with many choices. Incremental changes have great potential, both positively and negatively, to impact the bottom line. Monitoring and managing **productivity, price** and input **costs** can increase competitiveness by ensuring that valuable, incremental opportunities are not ignored. Please see the following article, originally published at www.beefresearch.ca/blog/fivepercentrule, and adapted with permission from BCRC, to reflect Manitoba values.

Manitoba Agriculture and Resource Development Livestock Staff List

Name	Location	Phone #	Email
Shawn Cabak	Portage la Prairie	204-239-3403	Shawn.Cabak@gov.mb.ca
Tim Clarke	Gladstone	204-768-0534	Tim.Clarke@gov.mb.ca
Glenn Friesen	Winnipeg	204-770-7266	Glenn.Friesen@gov.mb.ca
Pam Iwanchysko	Dauphin	204-648-3965	Pamela.Iwanchysko@gov.mb.ca
Juanita Kopp	Beausejour	204-825-4302	Juanita.Kopp@gov.mb.ca
Elizabeth Nernberg	Roblin	204-247-0087	Elizabeth.Nernberg@gov.mb.ca
Tod Wallace	Virden	204-851-5438	Tod.Wallace@gov.mb.ca
Kathleen Walsh	Swan River	204-734-3417	Kathleen.Walsh@gov.mb.ca

It can pay exponentially to have a precision rancher mind - How three, five per cent changes increase profit by more than 300 per cent

The Five Per Cent Rule: Productivity, Price and Costs

In terms of net income, economists have found that the difference between the top 25 per cent of agricultural operations and the average operation is typically small, as little as five per cent on inputs, production or price. If you change input costs, productivity and price each by five per cent, it makes a tremendous impact on the bottom line.

For example, from Manitoba, using the 300 cow-calf cost of production budget, a cow-calf operation selling 575 lb. calves at \$2.12/lb, has \$1,163 in revenue per calf with 95 per cent weaning rate. If the annual maintenance cost per cow (adjusted for reproductive efficiency (RE), death loss, etc.) is \$1,035, it leaves a \$128 per head margin for profit and labour. Let's see how a change in input costs, productivity, and price impacts overall profit.

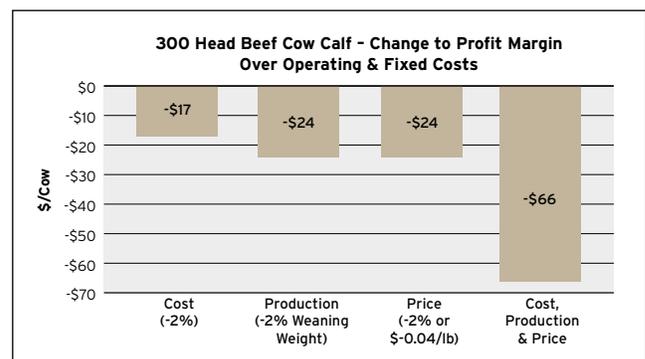
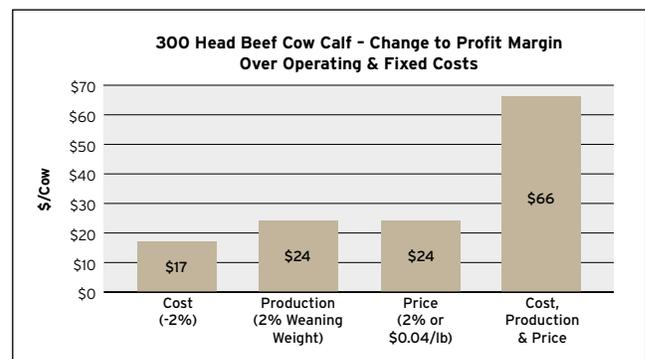
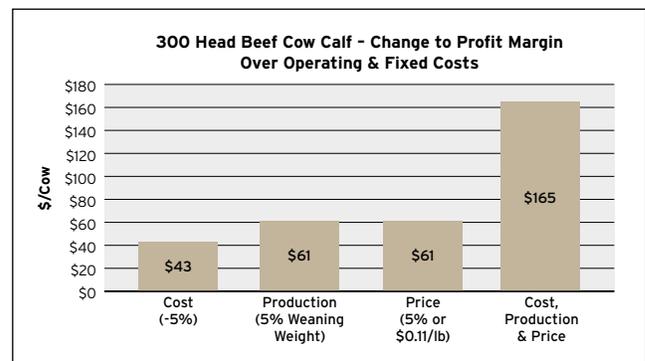
- If this operation cut input costs by five per cent, they would have a \$43 per head margin.
- If they add five per cent more weaning weight (another 29 lbs. sold at \$2.12/lb), they would have another \$61 per head margin.
- If they increase sale price by five per cent (up \$0.10/lb), they would have another \$61 per head margin.
- If they do all three of the above, margins would increase by over \$165 per head. Rather than a \$128 per head margin, they would now have a \$293 per head margin.

The three beneficial five per cent changes equal a 229 per cent increase in profit. For 300 cows, that means \$49,500 in additional margin for the year. On a legacy farm, with three generations operating for an average of 30 years each, means that over 90 years, maintaining three, five per cent changes results in \$4.4 million in additional working capital per 300 cows.

What about two per cent? - Using the same 300 cow-calf operation with two per cent adjustments:

- If this operation cut input costs by two per cent, they would have another \$17 per head margin.
- If they add two per cent more weaning weight (additional 12 lbs. at \$2.12/lb.), they would have another \$24 per head margin.
- If they increase sale price by two per cent (up \$0.04/lb.), they would have another \$24 per head margin.
- If they do all three, margins increase by \$66 per head. Rather than \$128 per head margin, we now have \$194 per head margin.

The three beneficial two per cent changes equal 152 per cent increase in profit. For 300 cows, that is \$19,800 in additional margin for the year. It may not seem like much for a single year, but for a legacy farm, with three generations operating for an average of 30 years each, it means that over 90 years, that is **\$1.8 million** in additional working capital (for every 300 cows) that can be re-invested into the operation. Imagine the difference an additional \$1.8 million would make in keeping up with technological change or managing volatile times in the market.



In the same way that small, incremental improvements can compound into big gains, small things can compound into big losses. For example, **three detrimental two per cent changes equal an outright loss of over \$66 per head - eroding margin from \$128 per head to \$62 per head.**

Don't allow your operation to have multiple small losses by ignoring hidden opportunities. Hidden opportunity costs are things unseen, but built into management decisions, for example:

- 20 per cent of your cows are a body condition score (BCS) of 2.0 at the end of summer. Not getting their BCS score up to the ideal 3.0 - 3.5 before winter means lost productivity and a higher unit cost of production.
- The decision to preg-check or not was made several years ago on a different winter-feeding system. Not re-evaluating with a current system means money is left on the table.
- Install a pumped water system for yearlings, but do not aerate the water, and therefore incur the cost, without gaining as much productivity as aerated water would have.

It takes time, effort and expense to achieve small net improvements in cost, production and price, but as the simplistic scenarios described above demonstrate, adopting the precision rancher mindset, by continually taking steps and working day-by-day to make small beneficial changes, can have a big impact on profit.

Regional Variance



How do you make incremental changes happen on an operation? What makes one producer competitive in one region may be very different in another region. Each production system will have its own set of limitations and areas where greater focus may be beneficial. Let's consider cattle operations in different climatic conditions:

- An extensive year-round grazing operation, similar to that of the Manitoba Beef & Forage Initiatives farm at Brookdale, has reduced infrastructure and machinery needs, resulting in decreased fixed and capital costs. They graze cattle among adjacent pastures, resulting in minimal labour requirements. Its limiting factor is land. In this region, operations may compete for land resulting from expanding urban centres.
- In contrast, an operation in Northern Manitoba, with heavy snow, does not have the option to swath graze to reduce winter feeding costs. Because of their climatic conditions, they may use confined feeding for several months, resulting in higher capital costs and a set labour demand. But they may have access to silage or alternative feeds that reduce their feed costs and allow them to stay competitive in their region.
- An operation that calves out in January and February requires adequate shelter during the winter. With higher capital costs, they may focus on productivity and animal performance through genetics and feed to compete.
- An operation in the Interlake, with extensive pasture and ample land availability that can only be accessed by horse, contend with economies of size, so larger herd sizes support margins.

When looking at competitiveness and profitability, each region needs to evaluate limitations and opportunities unique to them. Are land, labour or capital the limitations? Will the biggest impact for the operation be from reducing input costs, or improving productivity or increasing price?

Options for Small but Valuable Changes

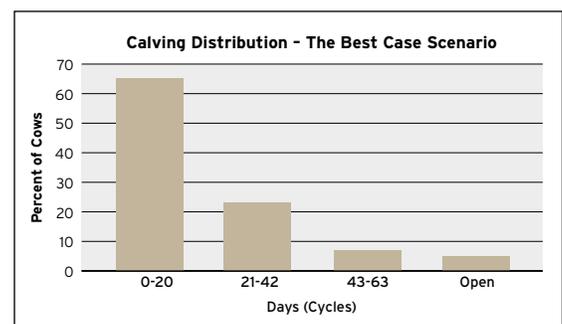
The following options for changing productivity, price and costs may be beneficial on your operation, depending on your region, and may spark ideas for other small changes that are worth considering.

Productivity

A lot of grain producers race to finish seeding because they know that more growing days equals more yield. They are willing to shift to 24-hour seeding because the extra expense of labour in the spring pays off at harvest. Similarly, having a higher percentage of cows calve in the first 21 days means more growing days and higher weaning weight. In addition, a shorter calving season can mean less days and less labour spent calving, contributing to efficiencies elsewhere on the operation.

Increasing productivity by two to five per cent on your operation could happen with a combination of things, including:

- increase reproductive efficiency (i.e. from 83 to 85 per cent)
- changing bull power to take advantage of increased gains due to hybrid vigour
- adding forage seed to mineral to boost productivity of grazing lands
- reducing pre-weaning death loss (by updating your vaccination program)
- increasing the proportion of cows calving in the first 21 days (studies show on average will add approximately 20 lbs. of weaning wt.)



How an operation achieves this goal will vary, depending on its production system: when they calve (February vs. May), where (on pasture vs. yard), how intensive/extensive their grazing system is during the breeding season and their use of community pastures.

Ways of achieving this goal may include year-round mineral program to improve fertility, artificial insemination, time-synchronization, flushing (if in pens, pre-breeding or through grass management), and separate feeding groups to improve fertility and longevity.

Some investments in technology or equipment pay for themselves and add to future productivity. For example, adding a system to pump and aerate water for herds of more than 200 head typically can be paid off in less than three years. Research shows that yearlings perform best when water is aerated. Installing a pumped water system for yearlings, without an aeration system, would limit the productivity gains, so the system would take longer to pay-off than an aerated system. Be careful to get the most out of investments. Learn more about increased productivity in animals with pumped water, rather than direct water access, on BeefResearch.ca (www.manitoba.ca/agriculture/farm-management/production-economics/cost-of-production.html), and seek out on-farm trials if you're considering new water systems).

Price

While there is very little you can do to influence cattle prices, consistency in the cattle you sell determines your reputation in the market. Whether your cattle perform consistently with uniform weights, health, and genetics will influence whether they will be split up and comingled at the auction market or feedlot. This potentially exposes them to more disease and stress, which impacts their performance and therefore, your reputation as a seller.

Years of consistent delivery of high quality builds a good reputation and may lead to buyers paying two to five per cent more for your calves. Evaluating the various options in terms of marketing, such as time, location and method of sales, may also increase sale price.

Costs

Different types of costs should be examined (e.g., overhead, fixed, variable). Think creatively about how to cut the per unit (e.g., a pound of weaned calf) cost of production. Cutting costs does not necessarily mean cutting cash costs. Consider how to increase profits. Cutting costs per unit may require an upfront investment, but result in higher productivity that ultimately reduces the per unit costs. For example, year-round mineral programs may increase total costs, but a higher reproductive efficiency could result in a lower per unit cost of weaned calf, which more than pays for the cost of the mineral.

To cut per unit costs by two to five per cent, think about:

- Overhead: how can you increase the use of existing resources?
- What facilities do you *really* need? If cows are on pasture year-round, do you really need permanent corrals? If machinery is only used seasonally, could it be rented out in the off-season, or cost-shared or rented from someone else? How does growing, versus buying, winter feed impact machinery needs and costs?
- **Variable:** How quickly (and accurately) do you diagnose disease in your animals?
- How much does that cost in time, treatment, and performance? Can changes in a herd health program reduce disease prevalence, treatment and improve performance? Again, think about cutting per unit costs, not cash costs.
- **Fixed cost:** How effective is your labour?
- Could other people be trained to take on tasks that are currently done by owners or managers and free up their time to work on things that only they, as owners/managers, can do? Time is money – particularly if you work off-farm.
- Establishing and utilizing standard operating procedures (SOPs) to ensure tasks are done consistently and correctly, such as everyone looking for the same things when checking cattle, can help provide a level of comfort for those being trained and for the managers who want to spend more time focused on the business. A basic system or standard operating procedure ensures someone being trained is not missing things which require time-consuming work to be repeated.
- For example, when someone different checks cattle on summer pasture, do they report on (1) water – clear and good footing and access (2) mineral availability, (3) cattle health and movement (4) grass condition, (5) fence?

Conclusion

As agriculture looks to the future, competition from alternative protein options is heating up. Beef cattle production needs to be competitive with other commodities to secure land, labour and capital resources. Part of that requires a mind-shift in how beef production is looked at as a business, examining every technology, production, and management practice that could benefit an operation. While there are no silver bullets that increase margins from \$10/head to \$100/head in a single year, several small changes can certainly add up to a big difference.

If you would like to be added to our information-sharing list, please email or text Juanita Kopp (Juanita.Kopp@gov.mb.ca, 204-825-4302). Our livestock team will be focusing on *the 5% Rules for Productivity and Profitability* as presented by BCRC. We will also present webinars or virtual training in the near future. Your input or topic ideas are always welcome. We will try to address them during the upcoming year.