



Benchmarks: Canadian Feedlot Benchmark Study

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**Western Canadian Feedlot Management School
February 13, 2025**

Where to Now?

What is a Benchmark

- Used by industry to compare current and former practices with ideal practices and identify areas for improvement
- Information can be gathered in many ways, typically through a survey
- Data is analyzed to provide insight industry practices

What Are the Benefits

- Identify adoption of new practices
 - Discover innovative practices to improve production
 - Collect data on recent years productivity and compare with ideals
 - Assess magnitude of changes in the industry
 - Identify issues faced by producers
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What Are the Benefits

- Direct research and extension work to priority areas
- Provides a tool to producers
- Valuable tool for assessing industry sustainability

Other Benchmarks

- USA
- Brazil
- Canadian Cow-Calf Survey


USA Feedlot Survey

- Several surveys have been conducted: 2001, 2007, and 2015
 - Focused on surveying nutritionists and their recommendations
 - Goal was to direct research to current issues
 - The 2015 survey, included 24 nutritionists managing an estimated 14 million cattle (Samuelson et al., 2016)
 - Questions included cattle adaptation, feed additives, and feed ingredients.
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USA Feedlot Survey

- Provided valuable insight to common practices
- Also identified short-comings
- Showed that implementation of new practices was slow
- Greatly helped to expand and direct research focus

Brazil Feedlot Survey

- Surveys have been conducted: 2009, 2014, 2016, and 2019
 - Feedlot nutritionists were surveyed to identify common nutrition recommendations
 - Goal was to direct research focus
 - Investigated feed management, cattle management, and issues faced by producers
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Brazil Feedlot Survey

- In the 2009 survey covering 22 nutritionists servicing over 3 million cattle (Millen et al., 2009)
- It was highlighted that there were issues with on-farm grain processing, feed delivery, and diet formulation
- This included low starch digestibility in corn, as the main recommendation was to grind
- Feed delivery faced challenges due to imprecise equipment
- Diet formulation faced challenges due to limited information of feed ingredients and low grain inclusion

Brazil Feedlot Survey

- By highlighting these issues, Brazilian feedlots and nutritionists were able to address them
- In the 2016 survey (Pinto and Millen, 2019), it was shown that feed management was starting to change
- By the 2019 survey, there was further drastic change in practices, with a dramatic increase in high moisture corn and programmed feed delivery to pens

Canadian Cow-Calf Survey

- First national survey collected data from 600 producers for the 2022 breeding season and 2023 calving season
- Provided valuable insight into issues facing cow-calf producers
- Including high calf death loss, feed quality, water quality, and weaning protocols



Canadian Cow-Calf Survey

Calf Death Loss

- Reported high calf mortality both after birth and before weaning
- By investigating resuscitation techniques, issues were identified
- Directed extension work, including training videos, webinars, and information pamphlets

CALF 911
RECOVERY POSITION



PLACEMENT

- ✓ Place the calf up on its sternum.
- ✓ Pull the front feet forward to allow the chest to expand.
- ✓ Pull the back legs up toward the calf's ears.



PROCEDURE

- ✓ Rub the calf vigorously.
- ✓ Stimulate breathing by poking the nasal septum with a piece of straw.
- ✓ Squirt a few drops of cold water in the ear to cause them to gasp.



REMEMBER

- ✗ DO NOT hang the calf upside down to drain fluid. This only empties the stomach and puts pressure on the diaphragm.



www.BeefResearch.ca Scan to watch a 2.5 minute video

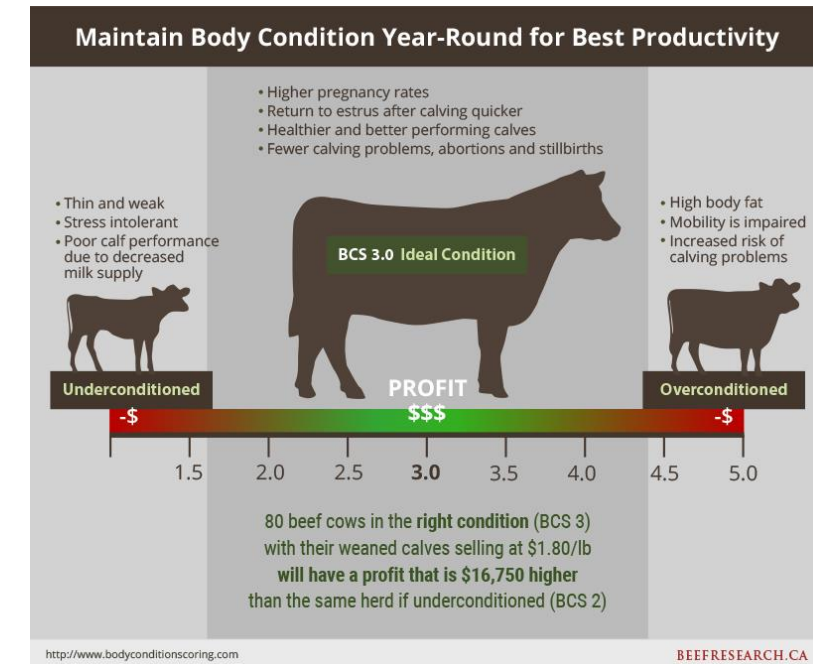
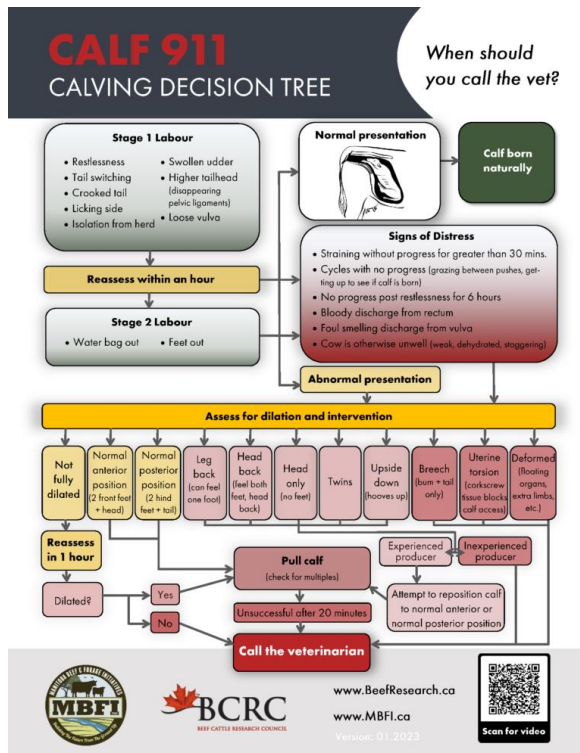
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SCAN ME

Canadian Cow-Calf Survey

- Greatly impacted research and extension work happening across the provinces



Canadian Cow-Calf Survey

- Data was developed into an online Canadian benchmark
- Able to compare your practices to Canadian values

Cow-Calf Production Indicators Calculator

NOTE: If an indicator is below the target or regional benchmark it does not necessarily mean that changing it will be beneficial. The cost:benefit of investing in changing each production indicator must be made on individual operations as they will vary and reflect one's production system and environment that you operate in.

| Step 1: Enter information in yellow highlighted cells | | | | Step 2: Compare to the Industry Targets ** | | Step 3: Compare to the Regional Benchmark (for cows)*** | |
|---|--|----------------------------|------|--|-------------------------|---|-----|
| Region | Western Canac ▼ | Choose From drop-down list | | TARGET | Western Canada | | |
| Cow:Bull Ratio | # Females Exposed | 375 | 19 | N/A | 20 | | |
| | # Bulls used | 20 | | | | | |
| Conception Rate (% Pregnant) | # Females Bred | 304 | 81% | 94% | Opportunity to Improve | | 92% |
| | # Females Exposed | 375 | | | | | |
| Length of Calving Period | (Last Calving Date – First Calving Date) | 53 | days | 63 | Meets or Exceeds Target | | 83 |
| Calving Distribution | | | | | | | |



The Canadian Feedlot Benchmark

Our Approach

- Surveying cattle feeders
- You know your farm better than anyone
- You know your concerns better than anyone
- We want to hear from you



Survey

- Released in August 2024
 - Available now
- Consists of 80 questions and takes about 1 hour
- Online format and paper
- Can be found on our website: <https://research-groups.usask.ca/feedlotbenchmark>

Our Research Team



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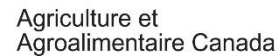
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Survey Topics



- General information
- Cattle management
 - Pen sorting method
 - Implant strategy
- Feed ingredients and diet composition
 - Grain processing
 - Byproduct usage
- Feed additives
- Issues of concern

How It Helps You

- Direct Canadian research
 - Direct Canadian extension
 - Improve sustainability estimates
 - Provide an accurate tool for producers
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Canadian Research and Extension

- By identifying common practices and concerns
- Show what is priority to producers
- Better allocated funds to projects focusing on key issues

- This information can also direct extension activity
- Lots of work done through BCRC and Saskatchewan Ministry of Agriculture
 - Can tailor it to issues in feedlot production

Sustainability Assessments

- Canadian Roundtable for Sustainable Beef
 - Works to promote and identify sustainable practices in beef production
 - Sustainability assessments
- Benchmarking provides in depth information for assessments to identify how we can improve production efficiency and sustainability



CRSB[®]
Canadian Roundtable
for Sustainable Beef

Tools for the Producer

- Part of our Benchmark, we want to create an online tool
 - Compare your practices to other feedlots
 - Help you make decisions on how to improve production

How You Can Help

- Great opportunity to improve the industry and help operations improve production
- Our survey is now available online
 - Only takes an hour of your time
- Offering a personalized report on your practices compared to the benchmark
- Can be found online at <https://research-groups.usask.ca/feedlotbenchmark>

Additional Research

NIRS Background

- Rapid Analysis tool
 - Grain and forage analysis
 - Fecal analysis
- Previous studies
 - Fecal composition (Starch, N)
 - Cattle performance (ADG, G:F)

NIRS Background

- NIRS is only as good as its calibration
- Many samples come from research
 - Some studies have investigated feedlot application
 - Applicable, but not perfect
- Data sets need to be expanded for feedlot use

NIRS Study

- Develop large scale NIRS calibrations for fecal composition
 - N and starch
- 20 feedlots across Canada over 2 years
- Fecal calibrations applicable to wide range of diets
 - Feed grains
 - Byproducts

NIRS Study

- Assess feeding management
- Fecal starch
- Fecal nitrogen



NIRS Study

- Still looking for feedlots to participate
- Takes little of your time
- When the calibration becomes available, it is directly applicable to your operation

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Tradeshow**