

A Proactive Approach to Culling Dairy Cows in Canada



An Important Note on Culling

Culling is an inevitable and often difficult decision for dairy farmers. We all want what's best for our cows and our operations — proactive culling may be one of the best solutions for both.

There's no "one size fits all" solution that can be used on every farm, so work with your veterinarian to develop a culling strategy that considers the factors that may make your farm unique.

It's important to recognize that almost every dairy cow will be removed from the herd at the end of her productive life. A 2017 study of Canadian dairy farms enrolled in Dairy Herd Improvement (DHI) services found that 26% of all cows (that's 183,961 animals) were culled¹.

Culling is the removal of cows from the herd, primarily due to undesirable traits. Culling decisions are tough.

It takes careful consideration of many factors, such as:

- Current and future productivity
- Reproductive status
- Current health status and future prognosis
- Cow welfare



Many cows that are culled are healthy - they are removed mainly due to reproductive issues.

Many others are culled for issues that have compromised their health (e.g. mastitis, feet and leg problems, sickness, and injury).

Compromised Animals In Canada

Canadian research has shown that a significant number of cull cows arrive to auction in poor condition (low body condition, hock injuries, and lameness).

Health and Welfare Concerns for Heavily Lactating Cows

Research studies have shown that a number of cows were in heavy lactation when arriving at the sale facility. Animals that require frequent milking are a welfare concern, as engorged udders are painful. These cows are also at an increased risk of developing mastitis. Both of these factors make these animals unfit for transport.

Conditions Worsen During Transport

We also know from numerous studies that a cow's condition worsens once it leaves auction facilities. Many lose body condition and have increased swelling in their udder. With many cows travelling for long distances over many days, cows need to be in good condition and not heavily lactating prior to shipping them. The journey is not always straightforward and can be difficult!

Cows with a low body condition (< 2)



Cows with an abnormal gait



What is Proactive Culling?

Being proactive is a mindset. It's all about taking action before something becomes an issue, rather than responding to the issue after it occurs. Proactive culling means taking steps to ensure that every cow that leaves the farm is able to make the trip without undue suffering.

Focusing in on "When" Culling Happens

We **CAN** prevent these welfare issues, get better sale prices, and offer higher quality meat to the market **IF** we cull cows before their health is compromised. This proactive approach means focusing in on the **WHEN** of culling. The goal is to reduce your involuntary culls (cows that must be culled) and focus on voluntary culls.



- **Involuntary cull:** culling due to illness, injury, and infertility
- **Voluntary culls:** culling prior to the development of these conditions

Research has shown that making more voluntary culls can improve returns by **\$136 per cow** ^{4,5}.

Which Cows to Cull

To determine which cows to cull, there are a variety of things to consider:

- **Pregnancy status**
- **Lactation**
- **Milk production**
- **Previous disease status**

Tools to Support Decision-Making

"Cow Value" is a great example of a tool to aid voluntary culls. It is calculated on DairyComp 305 and estimates the value of each cow in a dairy herd relative to an average fresh heifer in the herd.



A positive value means the animal is worth more than an average heifer (The value will increase if the animal is pregnant)



A negative value means you would be better off replacing her with a fresh heifer

Cow Value is another tool to use in your toolbox when you're deciding whether to cull a cow — on average, is a milking cow still profitable, or should you replace her?

For those of you not using DairyComp 305, a conversation with your herd advisors (such as your veterinarian) can help guide your decision-making.

References

1. CDIC. *Culling and replacement rates in dairy herds in Canada* [Internet]. 2019 [cited 2019 Mar 25]. Available from: http://www.dairyinfo.gc.ca/index_e.php?s1=dff-fcil&s2=mrr-pcle&s3=cr-tr
2. Moorman, A.K.G., Duffield, T.F., Godkin, A.M., Kelton, D.F., Rau, J., and D. Haley. 2018. *Associations between the general condition of culled dairy cows and selling price at Ontario auction markets.* *J. Dairy Sci.* 101:10580-10588.
3. Alberta Milk. 2018. *The compromised cattle benchmarking project.*
4. Thomas, C., Wolf, C. and S. Nott. 2003. *Why is culling rate important? Proc. Dairy Turnover How to Control it, Michigan State University 2003 Extension Dairy Education Program, page 16.*
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