



## Preconditioning Beef Cattle

**Preconditioning** is intended to reduce stress among calves during the critical and often high risk period following weaning. Calves that have been preconditioned are more likely to withstand the combination of stressors calves would otherwise encounter from abrupt weaning, transportation, comingling with unfamiliar animals, entering strange environments and experiencing drastic dietary changes.

**Retaining ownership** involves keeping cattle longer than your normal marketing cycle with the intention to sell into a different market and adding weight to the cattle. This can be done by backgrounding calves, which involves putting light weight calves on a high roughage ration to grow out the frame. Calves can be backgrounded at home or calves may be shipped to a custom feeder (i.e. finisher or backgrounder).



**Preconditioning** is a set of management practices that producers can use to prepare calves prior to weaning in order to reduce stress and disease susceptibility. Sale requirements for preconditioned calves typically include:

1. Calves must be weaned for a minimum of 45 days\*;
2. vaccinated and boosted with IBR, BVD, BRSV, PI3, clostridial vaccine and Pasteurella Pneumonia at least 21 days prior to sale\*;
3. castrated, dehorned and healed, dewormed, and treated for external parasites at least 21 days prior to sale;
4. introduced to processed feedstuffs, feedbunks and waterbowls, commonly referred to as bunk-breaking;
5. within an official program there may be identification (i.e. tag) and veterinary verification (i.e. official health certificate) required.

\*Minimum required in all programs reviewed

### Preconditioning Considerations

Preconditioning is a beneficial way for cow-calf operators to build a relationship with their buyers. With ongoing concerns regarding antimicrobial use and preventing potential resistance, preconditioning is becoming more relevant than ever for cattle buyers and feedlots.

Preconditioning can improve gains, reduce sickness and increase feed efficiency in calves. These benefits can help build a positive reputation for suppliers and lead to profits.

Preconditioning amounts to higher profits in later phases of beef production, and many buyers select preconditioned calves over their conventional counterparts, sometimes paying a premium to sellers. Cow-calf operators may also see higher returns from preconditioned calves due to

additional weight gained during the preconditioning phase and reduced actual shrinkage due to transportation stress or comingling. In most cases, the economic benefit of preconditioning is the extra pounds sold, not the premium received.

### Benefits of Preconditioning

To Cow-Calf Producer	To Cattle Feeder	To Society
Higher sell weight	Lower morbidity and mortality	Reduced use of antibiotics
Less shrink	Higher ADG	Reduced chance of antibiotic resistance developing
Build a reputation for quality cattle	Improved feed efficiency	

### What about other programs?

*Retaining ownership* and using one or a few of the recommended preconditioning practices, such as implementing a pre-weaning vaccination program, or introducing calves to prepared feed prior to selling, does not technically qualify as preconditioning. While all of these are helpful practices for reducing stress on calves, they cannot be expected to garner a premium in the market place. The focus in retaining ownership remains on adding weight.

A backgrounding program, on the operation that calves were born, may include all of the sale requirements for a preconditioning program. Hence, a preconditioning program could be considered a short backgrounding period.

### Does Preconditioning Pay for Cow-Calf Producers?

While it may be true there are clear health, welfare, and production benefits to feedlots that purchase preconditioned calves, *is it worthwhile to the cow-calf producer to precondition?*

### Potential Risks of Preconditioning

There are both **price and production risks** that come with preconditioning. The extra costs of preconditioning and price variations due to weight increase and market variability can negatively impact revenue. Price premiums on preconditioned calves do not necessarily result in positive net returns for cow-calf producers.

Compared to abrupt weaning, preconditioning requires more feed, time, vaccines, labor and facilities. There is also the price risk associated with selling calves later in the season rather than earlier. This is why it is critical to ensure that preconditioned calves gain enough weight to compensate for a potentially lower price per pound.

With conventional weaning and marketing, the risk of illness and death is shifted from the cow-calf producer to the feeder. With preconditioning, that risk shifts back to the cow-calf producer. But these health and death loss risks are minimized in preconditioned calves since they are not being abruptly weaned, taken off feed and water, transported, and commingled with other stressed calves with vastly different health status and disease conditions. If you typically retain your own replacement heifers, ask yourself this: What are your typical death loss and treatment rates between weaning and the start of winter? Why would it be different for preconditioned feeder calves?

To accurately assess the potential economic returns from preconditioning, a producer should have a good idea of their cost structure and realistic projections on cattle prices and preconditioning profits based on current market situations and experience from previous preconditioned sales.

### Preconditioning Calculator

With funding by the National Check-off and Canada's Beef Science Cluster, the Beef Cattle Research Council recently developed the **value of preconditioning decision tool**. This tool is a spreadsheet calculator designed to help Canadian producers evaluate the economic opportunity from preconditioning. Find the tool at [www.beefresearch.ca/research/preconditioning.cfm](http://www.beefresearch.ca/research/preconditioning.cfm)

Preconditioning is a general term referring to a group of management practices that includes low-stress weaning 30-45 days prior to sale, vaccination, and "bunk-breaking".

There are five steps producers will follow when using the calculator. The first four steps include entering general calf information, anticipated price under traditional management, preconditioning costs, and projected prices for non-preconditioned and preconditioned calves based on weight and seasonal adjustments. Using a robust database of historical Canadian cattle prices, the calculator allows producers to compare their price projections to the 10 year provincial average. The fifth step provides a summary of estimated net returns from preconditioning and projected breakeven prices of three different precondition programs (30, 45, 60 days).

The calculator can be used to evaluate the option of retained ownership with adjustments made to the appropriate cost lines (i.e. Medicine and Veterinary Care, Yardage).

### What are some things producers can do if they are interested in preconditioning?

- Evaluate your **goals** for preconditioning. What is motivating you? How will this fit in with how you currently wean and market your calves?
- Assess your **facilities**. Can you perform low-stress weaning? Do you have facilities to bunk-break your calves?
- Consider your **financial risk**. Are you financially prepared to retain ownership? How are you mitigating your market risk? Have you identified a marketing opportunity for your preconditioned calves?
- Study your preconditioning **options**. Are you going to participate in a specific endorsed program? If so, will you be able to meet the requirements? Do you have the minimum number of uniform calves that feedlots are interested in purchasing?
- Understand the realities of preconditioning. Do you have experience managing calves post-weaning? Are you prepared to deal with potential disease outbreaks?

Producers can use the *Value of Preconditioning Decision Making Tool* on [www.beefresearch.ca](http://www.beefresearch.ca) to evaluate preconditioning as an opportunity on their operation.

The Beef Cattle Research Council, a division of the Canadian Cattlemen’s Association, sponsors research and technology development and adoption, in support of the Canadian beef industry’s vision to be recognized as the preferred supplier of healthy, high quality beef, cattle and genetics.

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