

A Fact Sheet for the Canadian Beef Industry Dr. Melissa Moggy

Weaning is the process of stopping calves from drinking milk. The Canadian beef industry typically weans its calves at 6-8 months of age [1]. This process has been shown to be stressful for both the calf and the cow. It has been suggested that this stress is due to the separation of the cow and calf, a change in diet, and a change in environment [2].

The National Farm Animal Care Council

(NFACC) recommends the following [3]:

- Develop a weaning strategy that minimizes stress
- Consider preconditioning (a method of preparing calves for the feedlot) or prevaccinating calves as part of your weaning strategy
- Consider a low-stress weaning strategy, such as two-stage or fenceline weaning
- Avoid castrating and dehorning at weaning to reduce stress
- Be prepared to wean earlier if pasture resources are limited and cow body condition scores are below target levels

Stress at weaning has been associated with weight loss and increased chance of becoming sick (i.e. bovine respiratory disease). Calves that are transported to a feedlot at weaning have been shown to lose more weight and become sick more often than those calves that stay at home for preconditioning [1].

Traditional Abrupt Weaning

Traditional abrupt weaning is a method of weaning in which the cow and calf are physically separated. In this method the cow and calf

cannot touch, see, or hear each other. Numerous studies have shown that this method of weaning is stressful for both the cow and calf [1, 3].

Fenceline Weaning

Fenceline weaning is a method of weaning in where the cow and calf are physically separated by a fence, so that they can still see and hear each other [1,3]. Usually, calves and cows are allowed to see and hear each other for a week [1]. Research has shown that calves weaned by fenceline will eat more during the first couple weeks than those abruptly weaned. Table 1 shows a comparison of weight gained in calves, not weaned, fenceline weaned, and abruptly weaned [4].

One method of separating cows and calves is to use a woven wire mesh over a barbed-wire fence. An electric fence can be placed on the calf side, approximately 30-40cm away from the barbed-wire fence [5], as seen in Figure 1.



Figure 1: Appropriate fence set-up.

	, 0		5	
WEEK		NOT WEANED (PASTURE)	FENCELINE WEANED (PASTURE)	ABRUPT WEANED (PASTURE)
2 WEEKS		20	21.4	13.4
10 WEEKS		64.8	50.0	41.4

Table 1: Mean weight gain (kg) of calves 2 and 10 weeks after weaning

Source: Price et al. 2003 [4]

Keeping Calves at Home

After separating the cow-calf pair, there are a few options available to the producers.

- 1. Transport the calves immediately
- 2. Keep the calves home for a period of time
- 3. Precondition calves prior to sale

Research has shown that calves transported on the same day as weaning are more stressed and are more likely to become sick or to lose weight at the feedlot, than those calves kept at home [1]. Calves kept at home have also been seen to gain more weight at feedlot, than those immediately transported after weaning [1].

Preconditioning calves prior to sale includes weaning, vaccinating, and starting calves on feed [3]. Although preconditioning your calves for sale benefits the feedlot; it does come with cost for the cow-calf producer. Take into consideration what benefits your operation can receive from preconditioning your calves and weigh that against the costs. Every operation is different and what works for preconditioning in one, may not be beneficial to another.

For information about two-stage weaning, please see AFAC's "Two-Stage Weaning Fact Sheet".

Acknowledgement

Ankenman Trust Ranch supplied the photos used in this fact sheet. Originally published at: http://www.ankenmanranch.com/

References:

- National Farm Animal Care Council (NFACC). Code of Practice for the Care and Handling of Beef Cattle: Review of Scientific Research on Priority Issues. 2013 [August 14, 2014]. Available from: http://www.nfacc.ca.
- 2. Weary DM, Jasper J, Hötzel MJ. Understanding weaning distress. Appl Anim Behav Sci. 2008;110(1-2):24-41.
- **3.** National Farm Animal Care Council (NFACC). 2013. Code of practice: for the care and handling of beef cattle. Available at: http://www.nfacc.ca/pdfs/codes/beef_code_of_practice.pdf. Accessed: 08/29/14.
- Price EO, Sween ML, Connor JM, Borgwardt, RE. 2003. Fenceline contact of beef calves with their dams at weaning reduces the negative effects of separation on behavior and growth rate. J Anim Sci. 2003; 81:116-121.
- Chenoweth, PJ and Sanderson, MW. 2005. Beef Practice: Cow-Calf Production Medicine. Ames, IA: Blackwell Publishing.

