



September 2011

AG/AH/2011-07pr

Low Stress Weaning Alternatives for Cow-Calf Producers: Fenceline-Weaning

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Weaning is a stressful time for both the calf and the cow. During the process, the calves experience changes in both their environment and diets. Furthermore, comingling with other calves often introduces new disease pathogens. All of these factors can predispose calves to poor health during weaning and hinder their potential to perform.

There are several weaning practices that seem to be less stressful than abrupt separation of cow-calf pairs. Fenceline and two-step weaning have both been advocated as low stress weaning methods.

Fenceline weaning involves the separation of cows from calves by a fence. Separation by a fenceline allows calves and cows to still have visual, physical (although limited), vocal, and olfactory contact with each other.

The two-step method involves placing a plastic nose flap (tag) (Figure 1) on the calf (Figure 2). This flap prevents nursing (Figure 2) while allowing the calf to eat solid food. After a few weeks the plastic flaps and calves are removed.



Figure 1. Plastic nose flap from QuietWean. (Photo from valleyvet.com)

Decreased Stress and Increased Performance

Some recent research clearly demonstrates a reduction in stress behavior when either of these two low- stress

weaning methods is used in contrast to the traditional method of removing the calves in one day. Researchers in Michigan (Siegford et al., 2007) found that abruptly weaned calves were more active (as measured by pedometers) and vocalized more during the first 24 hours post weaning than calves weaned using either the fenceline or two-step weaning process.

Buskirk et al. (2007) reported that fenceline-weaned calves gained more weight and had lower stress factors in their blood (i.e., serum haptoglobin) during the first 14 days after weaning than abruptly weaned calves. These differences did not continue throughout the study and they reported that there was no sustained performance difference attributed to weaning method.

This short term difference validates the work of Price et al. (2003) that reported fenceline weaned calves spent more time eating (grazing or eating hay), laying down,



Figure 2. Calf with nose flap installed to prevent nursing and facilitate weaning. (Photo from omafra.gov.on.ca)

and less time vocalizing than abruptly weaned calves. These behaviors led to 95% more weight gain during the first 2 weeks post weaning for the fenceline calves versus those abruptly weaned. This study differed from Buskirk et al. (2007) in that the abruptly weaned calves never caught their counterparts in performance, even after 10 weeks.

Methodology

Fenceline-weaning involves separation of the cow-calf pairs into opposite pastures that are divided by a “see through” fence. The cows and calves have visual, physical, vocal, and olfactory contact with each other. The fence needs to be of a quality to withstand pressure from both sides. Cows will want to get with their calves and calves will want to get with their mothers. At the same time, the fence needs to be constructed such that across fence suckling does not take place. Some use a traditional barbed wire fence with an electric wire placed on each side. Others construct a more ridged fence out of woven wire. South Dakota Cooperative Extension (Wright and Pruitt, 2005) provides the following considerations for fenceline-weaning.

1. Fencing should be substantial enough to prevent the calves from nursing and keep the cows and calves separated. Producers have used various combinations of electric and non-electric, and high-tensile, barbed, and woven wire fencing. Gerrish (1998) suggests that, for cattle that have not been exposed to electric fencing, either woven wire or at least five strands of electric fencing will likely be necessary. If the cattle are familiar with electric fencing, three strands will likely be sufficient. Yet another option is to utilize four to five strands of barbed wire combined with a single strand of electric fence offset from the main fence.
2. Pasture the cows and calves together in the pasture where the calves will be placed following weaning. One week in the pasture allows time for the calves to become familiar with the fences and water source. At weaning time, return the calves to the same pasture and move the cows to the adjoining pasture.
3. Some producers have found it useful to use a yearling or a cow without a calf in the weaning pasture to lead the calves to the water source.
4. Performance of the weaned calves is highly dependent on forage quality and quantity. Options to provide high quality forage in the weaning pasture are:
 - a. Graze early in the season and allow adequate regrowth prior to weaning.
 - b. Harvest hay and then graze at weaning time.
 - c. Plant ryegrass, small grains, or other annual forages to provide high quality forage.

5. Fenceline-weaning fits especially well in a management system where maximizing gain is not important (replacement heifer development or backgrounding calves).
6. The need for supplementation of calves weaned on pasture depends on forage quality and quantity and the desired average daily gain.

Summary

Low stress weaning might prove beneficial to a cow-calf operation. Calves in low stress weaning systems seem to show reduced levels of stress and increased short term performance when compared to abruptly weaned calves. Using a flap in the nose has proven effective, but increases a producer’s labor costs (applying and removing flaps). Fenceline-weaning has gained a wider level of acceptance for producers. There are some considerations to think about before entertaining this production system at weaning. Not every cow-calf operation will have the facilities to implement this type of system, but for those who do, fenceline weaning may reduce stress related issues which backgrounders or feeders have reported to be problems in past years.

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This publication is issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle E. Cockett, Vice President for Extension and Agriculture, Utah State University.