



Weaning and Preconditioning

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FOR
COWS
AND
CALVES

One of the noisiest memories of growing up on a farm is fall weaning. On our farm, the whole family worked together to separate cows from calves. Sometimes we used horses, but my parents also believed it was important for an eight year old to learn to move cattle relying on nothing but a large stick and steely resolve. I remember lying in bed and listening to them all bawling as they paced the fence line, cows and calves touching noses through the posts. The farm kids were always sleepy at school during fall weaning.

Weaning accomplishes two things: it gives cows time to improve their body condition before winter and it provides an opportunity for the specialized feeding of calves as they transition from nursing to a solid diet. Preconditioning is more than just feeding, however. A preconditioning program includes vaccination, nutrition and general management that is designed to ensure that young cattle can withstand the stress of weaning and shipment to a backgrounding facility or feedlot.

Lets start with weaning. This is an incredibly stressful time for both cow and calf as they are separated and calves are handled, processed and transported for the first time in their lives—all while adjusting to a new diet. Stress depresses the immune system, making freshly weaned calves the most susceptible to bovine respiratory disease out of any age category. While simply separating cows from calves, and immediately shipping calves is still practiced by some, there are ways to wean that reduce this stress. Fenceline weaning is what we practiced while I was growing up: cows and calves are separated but can touch noses. However, fences have to be in good repair for this practice to be successful!

Research at the Ontario Veterinary College has investigated two-stage weaning. Calves are outfitted with an anti-suckling nose-tag while going through the chute for vaccinations and deworming. Cows and calves are reunited and the calves wear these tags for 4-7 days before being separated from their dams permanently. Researchers claim it takes less than 5 seconds to outfit a calf with these tags. They retail for just over \$1.00 each and they can be reused indefinitely. In comparison to abruptly weaned calves, two-stage weaned calves vocalized 97% less, spent 30% more time eating, and walked 73 km less. In fact, the pairs show very little distress or objection to separation after being weaned this way. Two-stage weaning also outperforms fenceline weaning on these measures, but both methods do imitate the natural weaning process, which takes place over a two-week period when calves are anywhere between 7 and 14 months of age. Both of these methods have the capacity to greatly reduce the stress experienced by cows and calves.

What about preconditioning? Technically speaking, a preconditioned animal is a feeder calf that has been vaccinated, castrated, dehorned and weaned for 30-45 days prior to sale date and has experienced eating dry feeds from a bunk. Castration and dehorning should not take place at the same time as weaning. These chores should be accomplished as early as possible in the life of a calf, as soft tissue damage is minimized and young tissue heals quickly. There are no proven

gain benefits to delayed castration and it is very painful and stressful for the calf.



Q: Why do cows wear bells?

A: Their horns don't work!

EVENTS

October

Energy Workshops

October 11th
Legion Hall, Grimshaw
10:00-3:30

We will hear from a variety of speakers on topics such as on-farm biogas production, wind and solar energy and the legislation around selling back to the grid.

Multi-Species Grazing

October 20th
Arts and Crafts Room
Valleyview Hockey Arena
1:00-4:30

Join us for an informal discussion with experienced graziers who graze pigs, sheep, goats, poultry and rabbits in addition to cows as a means to diversifying their income and improving their pastures. **Tour of rabbit processing facility included**

November

Western Canadian Grazing Conference

Nov. 27th-29th
Sheraton Hotel, Red Deer

Don't forget! Get registered today for this fantastic learning opportunity, Nov. 27-29th in Red Deer.

Cow-Calfenomics

November 20th
DMI, Fairview
9:30-3:30

Hear from experts in the field on managing the financial aspect of your cow-calf herd, including some new information on opportunities to decrease risk and improve return.

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Facebook Group!

<http://www.facebook.com/#!/groups/pcbfa/>

Properly preconditioning calves is correlated to lower death losses, lower medical costs and improved weight gains. Preconditioning is a particular benefit to ranchers placing calves into a custom feedlot where the cow-calf operator retains ownership of the calves. When preconditioned calves are properly advertised and verified as such by a veterinarian, they fetch a better price. Feedlot operators know these calves are a lower economic risk, that they are unlikely to become sick and will gain weight sooner as they are already accustomed to dry feed.

Table 1. Suggested nutrient recommendations for newly received calves.

Dry Matter, %	80 - 85
Concentrate, %	50 - 75
NE _m , Mcal/lb ^a	.82 - .90
NE _g , Mcal/lb ^b	.46 - .56
CP, %	12.5 - 14.5
Calcium, %	.60 - .80
Phosphorus, %	.40 - .50
Potassium ^c , %	.80 - 1.40
Magnesium, %	.20 - .30
Sodium, %	.20 - .30
Copper, ppm	10 - 15
Iron, ppm	100 - 200
Manganese, ppm	20 - 40
Zinc, ppm	75 - 100
Cobalt, ppm	.10 - .20
Selenium, ppm	.10 - .20
Iodine, ppm	.30 - .60
Vitamin A, IU/lb	2500
Vitamin E, IU/lb	50 - 100

Adapted from Hutcheson, 1990.

Proceeding of the Liquid Feed Symposium.

^aNet energy for maintenance.

^bNet energy for gain.

^cHigher levels for stressed calves.

So, preconditioning intersects strongly with weaning, as choices made by the cow-calfer surrounding calf nutrition make a big difference on the success of this transition. A good option sees 30 days of optional creep feeding prior to weaning followed by placing the creep feeder in the backgrounding or weaning area and setting it along the fence, if a fenceline weaning approach is used. Feeds should be of high quality and a receiving ration (Table 1) can be top dressed on the feed at a proportion of 0.5—0.75% of body weight per day. Long stem grass hay is a good starter feed as this is most similar to what the calves experienced on pasture. Fermented feed should not be fed at first, as the smell and flavour is unfamiliar. Nor should grains, as calves can develop acidosis, bloat and may founder when they are suddenly introduced to high grain diets.

The main cause of respiratory illness in freshly weaned calves is bovine respiratory disease (BRD) and BRD is rarely caused by just one bug. So, good management for healthy calves is your primary defense. Of the viruses, only IBR, BVD, BRSV and PI₃ are capable of causing this illness by themselves. These are the most important viruses to vaccinate for and are required by a majority in the stocker cattle and feedlot industries. However, other potential buyers may require clostridials, H. somnus and Pasturella and it is important to know the requirements of whoever you are selling to in advance.

A final consideration for preconditioning is parasite control, as it is required by a majority of stocker and feedlot buyers. Calves can be given a dewormer and if they are heavily infested, they can also be treated for lice. Some anthelmintics (dewormers) are also able to treat lice, so consider a single treatment that can accomplish both aims if lice is an issue in your herd.

When using the chute, and throughout all stages of weaning and preconditioning, use low-stress handling techniques. It is always amazing to me what eye contact and body positioning can do to move a cow safely and swiftly. A low-stress cattle handling course is an opportunity that should not be missed! Happy handling until November everyone!

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