



Weaning: Low Stress, Common Sense

Weaning is arguably the most stressful event in a calf's life. Combining stressors at weaning can inhibit immune response triggering health problems and shut off gains. Fortunately, cattle producers can understand stressing events and manage against the freeway pile-up that can occur at weaning.

By combining knowledge of the different stressors and pairing it with a low stress weaning system, producers can achieve the most profitable outcomes.

4 Major Types of Stress

Knowledge of the four major types of stress can help producers devise a weaning strategy around reducing them.

1.) **Social stress:** Prior to weaning, the calf has had mother as a guide for social hierarchy, she serves as a guide to food, she provides milk and takes the calf to new forage, she offers a "home base" for protection. The calf, prior to weaning, spends time following mother and using her as "home base."

2.) **Physical stress:** In many cases, calves are gathered and worked at weaning. This means physical stress of hauling, being ran through a chute, given shots, castrated, and dehorned can all occur simultaneous with the other listed stressors.

3.) **Nutritional stress:** The calf no longer has milk. Changing from a grass/milk diet to a hay/grain diet can be stressful on the animal and its digestive system. Any change in diet may result in unfamiliarity and lower feed intake. A change in the type of water source can be a stressor. Weaning is not the time to teach an animal to drink from an automatic waterer.

4.) **Environmental stress:** The obvious environmental stressors would include dust, mud, and lack of shelter/shade. These environmental stressors need to be managed. Some you may not think of would be the sights and sounds of tractors, people, and pets. The frequency of these interactions are likely far greater than prior to weaning. Removing the calves from a pasture and hauling them to a drylot may mean a totally new environment and all these stressors can take hold

Low Stress Weaning Strategies

Weaning can be a lot easier on you and the calves. Here are a few strategies that are easily deployed to lower stress at weaning time.

- **Creep Feeding-** Providing creep will increase the familiarity of the feed when the calf is weaned. Using a similar diet for creep and post-weaning rations will help ensure cattle have good intakes at weaning. Good intake is the foundation to healthy calves as proper nutrition will support immune system responses. Economics of creep feeding will vary from year to year
- **Pre-Wean Castrate and Vaccination-** running cattle through the chute for castration and vaccination BEFORE weaning is a good practice. Castration at birth may be an option if you do not plan to retain bull calves, but can decrease weaning weights. Preweanvac and castrate can occur around 60 days post calving when a calf implant can be used on culls. Letting calves handle these stressors while still having their mother at their side will lessen the stress significantly.
- **Fence-line Weaning-** research has shown calves that are fence-line weaned eat more, rest more, and vocalize less than calves separated and weaned in a drylot. They also gained 27 lbs. more in the two weeks post weaning and still had a 13 lb. advantage after 10 weeks. The familiarity with the environment (pasture), the feed (grass and creep), and the sight of their mother all help reduce the stressors on the calf. Fences need to be equipped to keep the separation. Hi-Tensile electric fence that has 4 or 5 strands or a 5 strand barb with an offset electric wire work well. The more exposure the calf has had to working electric fence the less extravagant your weaning fence will need to be.
- **2-Step Weaning-** fast catching producer's attention is the use of plastic nose flaps that inhibit the calf from nursing mother, but still allows full physical exposure to her. This system does require two trips through the chute to insert and take out the weaning device, but in many operations this coincides with pre-weaning vaccination. Most testimonials share success with the nose flaps being left in for 4-10 days. I would recommend using the nose flaps for 4 to 6 days



Fig 1. This calf escape hatch allows for calves to become accustomed to creep feed and bunks while still on the cow.

Common Sense Approaches

No matter what system you choose to deploy on your farm, apply some common sense weaning approaches. Simply paying attention to other potential stressors can help improve the welfare of weaning and gains of cattle. Some common sense approaches would be:

- **Avoid dusty or muddy pens** as location for weaning. Dust can be a large irritant to eyes and lungs which could result in more pinkeye and respiratory issues. Mud can increase maintenance requirements and decrease performance.
- **Ensure that the water is familiar** and placed in the travel of the calf. Water is the most important nutrient. Fresh, cool water that is in a familiar waterer will help calves stay healthy and on feed.
- **Feed a nutrient dense diet** at weaning. Intake will be lower than normal at weaning, thus making sure calves are getting enough nutrition will demand a nutrient dense feed. Avoid any filler feeds at weaning that lower nutrient density or could be sorted by more aggressive animals skewing the diet for more timid calves.
- **Avoid drastic changes in diets.** If calves have only consumed pasture and milk, a heavy concentration of grains is not best. The ruminant stomach is sensitive to pH changes that occur in rapid, extreme shifts from grass (fiber) to grains (starch). Using fiber-based coproduct feeds and a balancing mineral supplement are better in this scenario.

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- **Include mineral in the feed** to ensure consumption. Do not rely on the calves to consume free choice mineral. Ensuring adequate and balanced mineral consumption during weaning is important to aid the immune system. Injectable trace minerals are an option and recommended in nutritionally stressed calves or calves coming out of a drought area.
- **Start the calves with good quality grass hay as the roughage.** Alfalfa hay is too high in protein and will cause calves to be loose. I suggest feeding small square grass-mix bales or using a grass hay base in your TMR (total mixed ration). Calves need long forage for scratch, to initiate cud chewing. However, calves do not need to camp at a round bale all day long and fill up forcing them to not eat the nutrient dense supplement.
- If you have some variation in weight, and **small calves** are not getting their fair share, think about locating **another bunk in the back of the pen** or even a good lick tub to allow the smaller calves a chance at receiving proper nutrition.
- **Pre-vaccinate calves if you plan to mix** groups. Mixing calves from different farms will be another stressor. Mixing groups will result in new social hierarchy and potentially new bacteria and disease pressures. If you are regularly mixing calves, consider prophylactic usage of antibiotics (on-arrival).
- **Sort bulls out** from heifers and steers. Obviously, bull calves could have the capacity to breed heifers at time of weaning. Moving cattle up on feed and eliciting good gains can trigger some sexual maturity in heifers. Keeping bulls separate is a good practice.

Summary

Lowering stress at weaning is low hanging fruit on your farm... time to pick it. A little thought and planning can result in huge savings in medication used to treat sick, higher average daily gains during the weaning period, and better welfare for the calf and your mother cows. Cattle feeders want healthy calves, thus lowering stress at weaning makes sense.

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