Healthy Returns

Low-stress weaning strategies pay now and later.

by ***Heather Smith Thomas***

Weaning marks one of the most stressful times in a calf's life. Many calves experience added stresses if they are being vaccinated, transported, comingled with other calves (at a sale barn, growing lot, stocker pasture or feedlot) and must adjust to a new environment. If compounded, stress often results in illness or lower weight gain and less money for whoever owns the calf at that point in its life.

Consider Oregon State University studies demonstrating that lower gains at weaning time impact the finished carcass. Calves that keep gaining during the receiving period do better all the way through; for each 0.10 pound of gain during the receiving period (above that of the lower-gaining stressed calves), the researchers saw about a 20-pound increase in hot carcass weight at the end of the finishing period. Lower stress at weaning not only increases carcass value, but saves money in costs of treatment for sick calves.

There are many ways to wean calves, but the goal is to wean with the least stress to keep calves healthy and growing/gaining without setbacks.

For instance, an Ohio State University study showed that fence-line weaning, as opposed to abrupt corral weaning, halved the number of calves treated for bovine respiratory disease (BRD). Only about 15% of the fence-line weaned calves had to be treated for BRD, and that number doubled for calves that had to be transported during weaning. About 45% of calves that were put into a feedlot or drylot for weaning needed treatment.

Low-stress methods

Ron Gill, Extension livestock specialist at Texas A&M University and a noted stockmanship expert, says weaning strategies vary from ranch to ranch depending on facilities and the age of calves being weaned. Naturally, cows will wean their calves when they're 8-11 months old, which isn't a stressful process because the cow and calf aren't separated, Gill says. But cow-calf producers traditionally wean cattle at 5-8 months of age.

"We have to find a good way to do that, since we generally can't practice natural weaning (the cow eventually weaning the calf by not letting them nurse)," he says. Two low-stress weaning options available for ranchers are fence-line weaning and two-stage weaning.

The latter uses a flap placed in the calf's nose, which doesn't hinder eating or drinking but makes it hard to suckle their dam. After the flaps are installed, calves are turned back out with the cows and go through the first phase of weaning. They're unable to suckle, so the cow's milk dries up, all while the calf is still with their dam.

This method minimizes stress. The calf is still with its mom for companionship and security, and the cow isn't worried about her calf because it's still with her. After about five to seven days, the flaps can be removed and pairs can be separated.

Katy Lippolis, Iowa State University, studied two-stage weaning with nose flaps as part of her master's degree work at Colorado State University. "I evaluated how this affected cow performance, calf performance and carcass quality," she says.

She found most producers who use nose flaps say it's the least stressful way they've ever weaned calves. When still with their mothers, groups of calves may wander off and do their own thing — like teenage kids; the bond with mom is being broken. When you actually separate the cows from the calves and take out the nose flaps, the calves are essentially weaned and don't care very much about finding mom.

"When we're sorting them again (after they've had the nose flaps), putting calves one way and cows another, the calves just walk off and graze or lie down and chew their



Two-stage weaning is a low-stress strategy, which employs nose flaps to impede calf nursing while the calf remains with its mama.

Later Weaning – Wintering Calves with Their Mothers

Art McElroy winters his calves with the cows on his farm in Saskatchewan, 10 miles north of the U.S. border, near Havre, Mont. "We now calve in June and July, and this changed our thinking about how we wean and market calves, how we develop heifers, etc." he says.

McElroy usually doesn't wean until April or May; calves stay on their mothers all winter. This saves a lot of feed and labor and is better than grain-feeding to develop their rumens, enabling them to become good foragers. "They learn a lot from their mothers, as well," he says.

McElroy read a lot of articles by Walt Davis, Chip Hines, Burke Teichert and Kit Pharo over the years. His management philosophy has slowly evolved, driven by the cattle business' low margins and sometimes costly traditional methods.

"Reading some of the articles by innovative thinkers has helped me put pen to paper and understand where my costs are. One of the ways we try to reduce our cost is by leaving all the calves on the cows all winter. We know enough now about it to realize there is no cheaper place to develop a heifer than on her mother," McElroy says.

He winter grazes as much as possible to help reduce the cost of developing replacements. He believes the heifers also learn a lot from their dams. While the daily gain calves make on winter grazing may be minimal, McElroy has spent the last 12 years optimizing his cow herd to thrive on grass, which includes using grass-based genetics and downsizing his cows.

"I had to go through a mental shift, thinking in terms of return per acre rather than the traditional unit of production per cow," he says. "We only have a certain amount of forage, but if we have more small cows, producing more calves, this makes more total pounds to sell than fewer big cows with bigger calves."

Wintering a heifer on her mother has minimized cost and improved health. This can also reduce costs by not having to treat sick calves or have death loss from disease. That healthy heifer will do better for the rest of her life, compared to one compromised by illness.

"The way people wean calves by taking them off their mother and sending them to the auction, comingling with other cattle and selling them and trucking them again — to a new place with different feed and different water — it is no wonder they get sick," McElroy says.

He generally doesn't wean until late April, and the calves go back out where the mothers were — half a mile from home, grazing or bale grazing — and the cows stay in the yard. "The calves just head back there to graze and may hike back and forth a bit, but it's very low stress weaning," McElroy says.

By that age they don't need milk anymore, and the cows are not milking very much. "At that time of their life, I don't know how much milk those calves are actually getting, and by that age they are more independent than a younger calf. They learned about grazing from mom. A day later I move the cows clear away and the emotional tie is not nearly as strong. I think the stress of weaning is mainly breaking that tie," he says.

When it is time to separate the cows from the calves, McElroy simply gate cuts the cows from the calves and then puts the cows in a pen and the calves back out on the pasture they have been grazing.

"It's a very quiet process," he says. **BA**

cud, completely at ease and relaxed. The cows might turn around once and then just walk away. Once you break that nursing bond (which provided comfort as well as milk), the calf is ready to go," she says.

While fence-line weaning, where calves and dams can still see each other, reduces stress in most cases, Gill reminds ranchers that stockmanship is an essential part of success. The situations where he's seen fence-line weaning not work is when people process cattle and get them stirred up and stressed, then turn them out with calves on one side of a fence and cows on the other. "They are in panic mode already and may go through or over a fence to try to get back together," Gill says.

Fence-line weaning requires proper planning to ensure adequate grazing for calves on high-quality pasture. If there isn't adequate forage to provide the necessary nutrition, Gill says the calves will need good hay, silage or grain during the transition.

Producers should note even the small parts of their routine. For example, one problem with fence-line weaning if you use a feed truck is that cows will start bawling when they hear the truck and want to come to the feed. If the cows start bawling, this upsets the calves. In this case, Gill recommends finding a different way to feed cattle that won't attract the cows, cause bawling or added restlessness.

Each decision a producer makes should be centered around lowering stress and maintaining health and growth. "Anything you can do to reduce stress is beneficial," Gill says. "Whether you move cows through the gate and leave the calves, separate them in a pen and let the cows back out, or send the cows one way and calves another, you want to do it as quietly as possible."

He even recommends not doing anything else with the cattle on the day that calves are weaned, although he realizes this is tough for some operations.

Tailoring options

Weaning decisions are never static; these factors are never the same from year to year. It depends on cattle markets, weather, cost of feed etc., reminds Gill.

"From a stewardship standpoint, I feel every rancher should wean calves at home in a familiar environment. Yet I realize that from an economic standpoint this may not always be the best," he says.

While at-home weaning sets the calves and their next owners up for the most success, Gill has seen instances when sending calves right off the cow might be the better decision for the calves' welfare.

"I've seen some people who tried to keep calves at home and didn't have the facilities, time or labor to do it right. Those calves would have been better off shipped to someone who had the time and resources to manage them correctly," he says. "Even though stress might have been higher hauling them away right off the cows, there might not be as many get sick. That's the objective:

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to keep them from getting sick at home and keep them from getting sick after they leave home."

Even when producers must use more stressful weaning methods, given their operation's circumstances, they can still take steps to reduce stress. For example, if you have to wean calves in a corral rather than on pasture, Gill recommends getting them used to eating the new feed before you wean them, so it's not an abrupt change. "Teach them to eat whatever you'll be feeding them after weaning and do it while they are still on the cow," he says.

Calves will try new feed more readily when they are not stressed and will sample new feed if they see mama eating it. "This is learned behavior," Gill notes. "Here in Texas, many producers use cottonseed meal pellets or cubes as a supplement during weaning. We might feed some in the summer on pasture to get calves used to eating it with their mothers. Then they'll eat it from day one when you wean."

Stressed calves rarely eat a new feed well, and they'll often lose weight.

"If they aren't eating during this time, it stresses their immune system. Usually if calves will eat and maintain or gain weight through the first seven to 10 days after taking them off the cows, they won't get sick," Gill says. "It's when they won't eat and won't drink that they get in trouble."

One of the best ways to reduce stress at weaning is to use low-stress handling to quiet the calves when they are separated from their mothers. "Even if you get them sorted and separated quietly into a pen or pasture without a lot of hassle, those calves will still walk the fence and bawl," Gill says. "Someone needs to get in there with them and quietly change their focus. This is part of the process we call acclimation, to get them settled into their new situation smoothly."

By changing the calves' focus and stopping them from walking and bawling, a producer helps the calves realize they can stop and rest. The weaned calves will begin to see people as a source of reassurance, and this will reduce stress. Good handling and stockmanship, in general, has been shown to dramatically reduce sickness, morbidity and mortality rates.

"This aspect of weaning is more valuable than most people realize," Gill says. If you relieve the stress during the first days, they stop bawling a lot quicker.

Bottom line, ranchers should remove as many stressors as possible. Then the only stress a calf will experience is the separation itself, and producers should work to make it as smooth as possible. **BA**

