



Low-stress Weaning Methods

Four weaning options can reduce stress on calves and cows, increase performance.

by Heather Smith Thomas

Weaning time has traditionally been traumatic for calves, mama cows and ranchers, but in the past 25 years, many ranchers have found better ways to wean than putting calves in a corral and taking their mothers away.

Weaning creates physical and emotional/security stresses for the calf, and the emotional trauma is harder on the animals than suddenly being deprived of milk. A big calf doesn't need milk anymore, but still feels dependent on mama and is insecure without her.

If confined in a weaning pen, calves pace the fence and bawl, often running frantically back and forth. If corrals are dry, this churns up dust that can irritate respiratory passages and open the way for respiratory infections. The calf is doubly susceptible to respiratory problems at this time because stress hinders the immune system.

Pasture weaning

On green pasture, there's no dust and calves do better because they are accustomed to eating grass. They don't go off feed as much as when changed to hay and concentrates. If grass is drying out, the pasture can be supplemented with good-quality alfalfa hay.

Jim Gerrish, former specialist with the University of Missouri's Forage Systems Research Center (FSRC) and now a grazing consultant based in May, Idaho, pasture-weaned calves for more than 15 years while he was in Missouri. Calves at the research center were put in a pasture with woven-wire fence they could not crawl through, and kept there two or three days after being taken off their mothers.

"They did a bit of walking for a while, and more trampling than grazing, but when we put them out on better pasture after

the second or third day, they went right to grazing. We weaned about 200 calves each year this way and had no sick calves," says Gerrish. The calves gained, on average, 1.6 pounds (lb.) per day during the pasture-weaning period with no supplemental feeds.

If you wean early — as when trying to conserve scarce green feed in a dry year, or when sending cows to market early — or if you want to wean heifer's calves early, pasture weaning is often best because it's easiest on the calves. In a drought situation, you can save your best pasture for calves and put the cows on rougher feed or supplement them with hay. If you are short on good fall pasture, it can be used to its best advantage by the calves instead of being eaten up quickly by cow-calf pairs. The dry cows do fine on more marginal feeds.

One way to reduce stress at weaning is to wean calves a few at a time, hauling their mothers away and leaving the weaned ones in their familiar pasture with the rest of the herd, with adults for security. If mothers of

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the weaned ones are taken far away where they cannot see or hear them, the calves usually don't try to go through fences to find their mothers.

If the last place a calf suckled its mother before separation was in the field with the herd, it usually won't look any farther than that, and soon resigns itself to her disappearance. The last group to be weaned no longer has adult cows for security, but they have the calm, already-weaned calves for company. You can also leave a few dry babysitter cows with the weaned calves in the pasture, until their emotional crisis has passed.

Fenceline weaning

Fenceline weaning, especially at pasture rather than in adjacent corrals, helps minimize emotional stress because calves can be next to their mothers, even though they can't nurse. In Missouri, Gerrish had 40 cows of his own and utilized what he called cross-fence weaning, putting cows and calves in separate but adjacent pastures for two days, so calves still had the security of their mothers right next to them through the fence.

There was no frantic pacing and bawling like you see in corral weaning, he says, and the calves had green pasture when they got hungry. By the third day, after the pairs were not so eager to get back together again, he moved the cows farther away.

The calves weaned on pasture never stopped gaining. They also experienced less stress and fewer health problems. With this weaning method, you can vaccinate calves the same day you wean, since there is less risk of sickness and less failure to build good immune response due to stress. By contrast, feedlot/corral weaning programs sometimes experience a standstill in weight for a few days even when calves are offered expensive feeds. Also, the calves need to be vaccinated a couple of weeks ahead of weaning to have good immunity by the time they are stressed, so this means working the cattle twice.

Fenceline weaning works well if fencing is secure enough to keep animals from going through the fence. A pole fence, or netting that's tall enough the cows can't reach over to mash it down, portable panels, or several strands of hot wire will generally work.

Kit Pharo, at Cheyenne Wells, Colo., has been using fenceline weaning for more than 20 years.

"We like to move pairs into the pasture a few days ahead, so the calves will be staying in familiar surroundings. They locate the water sources and perimeter fences while still with their mothers," he says. The primary water



PHOTO BY KASEY BROWN

►Some ranchers are saving winter feed costs by wintering summer-born calves with the cows and not weaning until spring. Some put cow-calf pairs on cornstalks and some are "bale-grazing" the pairs through winter.

source should be near the fence, close to the adjacent pasture where their mothers will be after separation. Don't have corners in the dividing fence where animals could bunch up.

"On weaning day we allow pairs to finish their morning grazing. Mid to late morning we slowly bring them to our sorting corral and leave them a while to let them mother up and nurse one last time. When we come back, there isn't any bawling. We quietly sort the cows out one gate into their pasture and calves out the other gate into theirs," Pharo explains. "Most cows will be ready to file out when you open their gate, knowing they are going to a fresh pasture. If you are patient, the herd will essentially sort itself. Calves are easy to hold back. After the first cows have left the corral, you can let a few calves out the other gate. The sorting is soon finished, with no stress."

Pharo leaves a few dry cows with calves to provide reassurance and leadership.

"Since the calves are returning to the same pasture they came from, they usually aren't bothered, and it may take a couple hours before cows and calves go searching for one another," he says. "As soon as they meet at the fence, their anxiety disappears. Often you'll see a cow and her calf lying on opposite sides of the fence, chewing their cud." They go graze, and come back periodically to check on one another.

"After three days, fewer cows come back to the fence. They know where their calves are, but are less concerned about them. Likewise, the calves begin to realize they don't need their mothers anymore. We wait at least four days before we move the cows clear away. By this time they are usually so eager to go to fresh pasture that all we have to do is open the gates ahead of them. Very few want to turn back for their calves. If the cows are not ready, leave them another day or two," says Pharo.

In a study of fenceline weaning in California, the calves gained 31% more weight after 10 weeks than the average calf weaned away from its mother. In a Nebraska feedlot, a study showed that fenceline-weaned calves had 29% better daily gains and 35% lower cost of gain than groups of calves weaned the traditional way.

Nose flaps

A dozen years ago an innovative anti-sucking device was created to make weaning easier. This low-stress method involves "nose flaps," or "nose paddles." These plastic flaps can be easily installed in seconds, with calves restrained in a chute, then the calves are returned to their mothers. The flap hangs down over the nose and mouth, preventing the calf from getting a teat into its mouth, but does not hinder eating grass or hay, or drinking water.



PHOTO BY MICKY BIRCH

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The calf can't suckle, but is not emotionally upset because it's still with mama. It has her companionship and protection during the weaning process. She starts to dry up her milk, and the calf adjusts to not having milk. About five days later the cows and calves can be completely separated from one another and the flaps removed.

Studies at University of Saskatchewan and Montana State University in 2005 showed that this two-step weaning process resulted in much less stress on calves than traditional weaning methods.

Joseph Stookey, professor of animal behavior in the Western College of Veterinary Medicine at the University of Saskatchewan, was one of the people who invented this device. He says that when the study compared the two methods, there was a huge difference between the two groups in how they handled weaning.

The two-step weaning works well because of the way cattle are biologically programmed.

"Mammals are equipped to know that one day the milk will be shut off, but they are not prepared for mom and milk to disappear at the same time," says Stookey. Cattle are herd animals, and calves look to adults for security. If a calf can stay with his mother and social group through weaning, he is not stressed. In nature, calves are weaned by mama kicking them off before her next calf is

born, and the weaning tags along with mom and the herd.

"There's always the occasional smart calf who can figure it out and cheat — to still get a teat in his mouth — but the vast majority don't. You only need to leave the flaps in the nose for three to five days (though it doesn't hurt to leave them in for a week). Then when you separate the pair, it is unbelievable how at ease they are. They go about their business without worrying where mama is or baby is," says Stookey.

"People used to say weaning stress was due to calves not knowing how to eat from a bunk, but it's all about missing mom. Taking the cow away creates tremendous emotional trauma for calves. This stress is huge for calves, more than for many other species, for some reason," he says.

The research with nose flaps was dramatic. One of Stookey's students had asked a simple question: What does the calf miss most — the milk or the mother? When they did the study and took away the milk, none of the calves were very upset or complained. When they took away the mother a few days later, they didn't miss her either. He says they realized they'd already weaned the calves in the presence of the mother; that was the big difference. This was an amazing revelation about the weaning process, he emphasized.

While it is work to sort calves from cows, put nose flaps in, put calves back together

with the cows, then separate them again, there are ways to simplify the process, says Stookey, referencing a research project with Dylan Biggs, a producer who uses low-stress handling.

"He showed us a good way to sort cows from calves," says Stookey. "He puts all the pairs together in a big pen, then lets them stream back out through an alley in which he's taken off the bottom fence plank. The calves can pass right under the fence into the adjoining pen, trying to follow the mothers.

"They sort themselves," Stookey adds, noting they weaned 300 of the rancher's calves this way. Sorting cattle can be easy and without stress, especially if you can let them think it's their idea.

Late weaning

As more ranchers go to later calving (April/May or June instead of January/February or March) to calve "in sync with nature" and take advantage of green grass when lactating cows need it most, they are faced with weaning/marketing younger/lighter calves in the fall, or weaning later in winter. This means selling mid-winter or having calves on feed to sell in the spring.

Some ranchers are saving winter feed costs by wintering summer-born calves with the cows and not weaning until spring. Some put cow-calf pairs on cornstalks and some are "bale-grazing" the pairs through winter.

Ken Miller has been bale-grazing cow-calf pairs through winter for six years on his ranch in south central North Dakota along the Missouri River.

"I usually allow them a week's worth of feed, and then move them to the next bunch of bales. I feed some high-quality hay along with some coarse hay," he says.

The cattle eat some of the poorer hay to add fiber to their diet to balance the good hay, and trample and bed on the rest. This puts more organic matter on the ground (a mix of old hay and manure) and creates more fertile soil on those fields.

"Some people think that when it's very cold, the calves won't perform very well wintered with their mothers on hay, but they do quite well. We wean in late March, and since we don't calve until late May/early June, the cows have adequate time to recover. There is no stress weaning at that age. The calves are about 10 months old and don't miss their mothers at all. Some have already been weaned by the cows," he says.

"I run them as yearlings and sell them in August or September. Wintering the calves with their mothers, there is no

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sickness, compared to weaning in the fall. We used to give preweaning shots, etc., but we've eliminated all that. We use a mineral program in the winter for a couple months, but that's about the only supplementing," he says.

His cattle graze fall pastures until grass gets covered with snow in January.

"We used to feed 5 to 5½ months out of the year, and now it's down to about 4 months of bale-grazing, even in bad winters. One winter we fed for only 90 days," says Miller.

At one point he had some fall-calving cows, calving in September/October, so those calves were wintered with their mothers.

"They did fine, and I figured the older calves would, too. You can't do this if you are calving really early, like February, but calving in May our cows don't have to be fat through winter. Even if they've lost some body condition by the time we wean the calves, they fatten up by calving time," he explains.

Weaning calves younger, in late fall/winter weather, generally results in more sickness, says Miller. He prefers to leave them on the cows because they learn to graze through snow and it offers him more marketing



options. Instead of selling light May/June-born calves in November, he leaves them on the cows and grazes them until the following August or September at heavier weights. He adds this doesn't add much feed investment to the calves.

Editor's Note: Heather Smith Thomas is a cattlemaster and freelance writer from Salmon, Idaho.

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