



by Troy Smith

**K**ent Bamford has experience with bawling calves — calves that were “weaned” onto a truck and sent down the road. Plenty of them have been unloaded at his 17,000-head feedyard near Haxtun, Colo. Bamford has handled enough calves to know how sick the freshly weaned, highly stressed calves can become. He knows that a hard wean means increased costs for medication and added labor. It also means the cattle may never realize their genetic potential for performance and carcass merit.

“You’re more likely to have trouble when you don’t know the health and immunization history of the cattle. You can be in trouble before you know it,” Bamford says.

“If calves get sick, they’re nearly always damaged to some degree. It hampers their performance in the feedlot, and it can affect the carcasses. Fewer reach Choice (quality grade) and they may not yield as well. That’s important when you sell on a grid,” he adds.

► Above: Most cattlemen know that sick cattle are slow to come to feed, but many fail to use this observation to their advantage.

### The dollars and cents

Texas A&M University’s Ranch to Rail program bears out Bamford’s opinion. After a decade of tracking steers from 1,700 ranches in 10 states, results indicate that cattle that suffered from postweaning illnesses exhibited lower average daily gains (ADG), reduced feed efficiency and lower carcass quality grades.

Last year, steers that had been sick posted rates of gain that were, on average, 14% lower than steers that did not require treatment. The average cost of gain for treated steers was 30% higher. Fewer treated steers hung Choice carcasses and, compared to the healthy cattle, twice as many fell into the Standard grade.

The average return from healthy steers was \$151.18 greater than for treated animals. Not only did each sick steer require additional medicine, costing \$44.55, but \$106.63 in lost value was also attributed to sickness. Theoretically, they were worth \$26.48 per hundredweight (cwt.) less, upon arrival, than steers that never needed treatment.

### Prevention

Bamford believes the key to avoiding costly sickness is to have calves nutritionally ready to wean, to adequately immunize and to reduce stress as much as possible.

With regard to nutrition, Bamford is afraid some producers underestimate the importance of providing mineral supplements while calves are on the cow. He says using a mineral mix appropriate to the local area (in order to correct specific deficiencies) will enhance the calves’ immune systems and their response to vaccines.

Bamford advises vaccinating calves twice prior to weaning, for viral diseases, including infectious bovine rhinotracheitis (IBR), bovine viral diarrhea (BVD), bovine respiratory syncytial virus (BRSV) and parainfluenza-3 virus (PI<sub>3</sub>), as well as for the clostridial (blackleg) diseases.

Now more widely recognized are the benefits of managing calves under the Value-Added Calf (VAC) system, which, according to University of Nebraska Extension veterinarian Dee Griffin, emphasizes preweaning immunization of calves for diseases from which they might suffer after weaning. In many herds, Griffin adds, the early processing time (branding) is the perfect opportunity to vaccinate for the respiratory viruses on Bamford’s list, as well as for bacterial infections. If the cows have not been exposed to the bull yet, a modified-live virus (MLV) vaccine should be used.

In addition to the clostridials, Griffin also advises vaccination for *Pasteurella*

*haemolytica* and *Pasteurella multocida*, but questions the value of vaccinating calves for *Haemophilus somnus* or leptospirosis. He recommends that all bacterial vaccines be purchased from manufacturers whose products meet the “hi-tech” criteria.

“That means they should be available for use as a low-dose, subcutaneous injection,” Griffin explains. “If bacterial, they should be a ‘sub-unit’ refined product and not a bathtub full of bugs.”

Griffin emphasizes that all injectable products should be administered subcutaneously in the neck region. To make sure calves build sufficient immunity, vaccinations should be repeated two to four weeks prior to weaning. At that time, Griffin urges producers to treat calves for parasites, too.

“Calves are much more susceptible to parasites than yearlings or adult cattle, so use a high-quality, broad-spectrum product. In drought areas, calves may be low on vitamin A, so a subcutaneous injection of that may be useful. And don’t overdo the implants,” Griffin warns. “High-stress calves, even heavy six-weight calves, may not perform well if given an implant that has more potency than the calves can match with their feed intake. A short-duration calf implant may be best in many sets of high-stress calves.”

### Postweaning

When it comes to feeding newly weaned calves, the first concern is to end their negative energy balance. Good-quality grass hay should be made available for the first week or until all calves have filled up. Medium-quality alfalfa is a palatable feed that calves usually eat readily, but if the quality is too high, bloat or other digestive problems might result. By the third or fourth day, grains or commercial starter feeds may be introduced. Ground oats make a highly palatable starter feed, but go slowly with high-energy diets. If not carefully managed, they can cause digestive disturbances that add stress and complicate the total disease situation.

When watching for sickness, Griffin emphasizes attention to detail. Early detection and treatment is the key to minimizing death loss and the incidence of chronic, poor-doing calves. When illness is detected during early stages of incubation, the chance for a favorable response to treatment is much better. Early detection isn’t easy. Check calves frequently during the first couple of weeks postweaning, and watch closely for early symptoms.

Signs of sickness include:

- ▶ gaunt, dehydrated appearance or rough hair coat;

- ▶ drooping ears and tucked tails;
- ▶ dull or sunken eyes;
- ▶ drooping head;
- ▶ repetitive cough or rapid, labored breathing;
- ▶ discharge from the eyes or nose;
- ▶ stiff gait;
- ▶ reluctance to move or rise;
- ▶ isolation from other calves; and
- ▶ failure to come to feed.

The last item on the list is far from least. Griffin says the most important early symptom of respiratory infection may be appetite depression. Most cattlemen know that sick cattle are slow to come to feed, but many fail to use this observation to their advantage. According to Griffin, the best time to spot sick cattle is at feeding time. As soon as feed is delivered, someone should be watching for cattle that don’t come to the bunk.

“You need to know the first day cattle are slow coming up to eat. Research has shown that feed consumption in cattle exposed to viral respiratory disease starts to drop 48 hours before a rise in body temperature can be detected. In fact, the consumption will drop by 50%, 24 hours before the animal’s temperature starts to rise. If you are carefully watching consumption, you can get ahead of most cases of typical respiratory infections,” Griffin explains.

To minimize additional stress, particularly from heat, Griffin advises producers to identify, sort and treat sick cattle early in the day.

“Get finished and have calves back in their pens by the time the temperature reaches 80 degrees,” he adds.



PHOTO BY CORINNE BLENDER

▶ Some producers underestimate the importance of providing mineral supplements while calves are on the cow.

Sickness and death loss following weaning rob both calf producers and cattle feeders. Bamford knows how it is to receive highly stressed, poorly immunized, bawling calves and to battle the illnesses that follow. To minimize problems and costs, he urges producers to take the steps needed to have calves ready to wean, then wean at home if possible.

“Weaning on the ranch is always best, so the additional stress associated with transport to another location is eliminated,” Bamford says. “Ranchers with the facilities and resources to do it will realize the value of weaning at home.”

