

# Preconditioning Standard

**Ensure a smooth transition from weaning to feedlot or another program.**

Story & photo by  
**MICKY BURCH**

As the golden colors of fall take over the green grass of summer, many producers are likely thinking about the optimum time to wean their 2012 calf crop. Weaning management decisions are often market-based, premeditated and include a preconditioning program.

According to the CattleFax *Producers Roadmap: Navigating the Changing Business Environment*, the purpose of preconditioning is to ensure a smooth transition from weaning to feedlot or another program, like heifer development, by following a vaccination program and starting calves on dry feed before shipping.

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According to the *Beef Cattle Manual* Fifth Edition published by the Oklahoma Cooperative Extension Service, Division of Agricultural Sciences and Natural Resources, Oklahoma State University, weaning and receiving are the most stressful times in a beef animal's life. Preconditioning minimizes the risk and cost of disease by building a strong immune system in the animal.

A precursor to any weaning program is a comprehensive health management program at grass time. Without the proper vaccinations at 60-75 days of age, vaccination at weaning doesn't do much good. At weaning, the *Beef Cattle Manual* says, calves should be vaccinated with a seven-way clostridial and against respiratory viruses, including infectious bovine rhinotracheitis (IBR), bovine viral diarrhea (BVD), parainfluenza-3 (PI3) and bovine respiratory syncytial virus (BRSV). Additionally, heifers may need to be vaccinated for brucellosis, or Bang's disease, and some producers may need to vaccinate against pinkeye.

## Program approach

Arthur Behrens follows a protocol very similar to this at his private practice at Templeton, Iowa. Oftentimes, he follows the

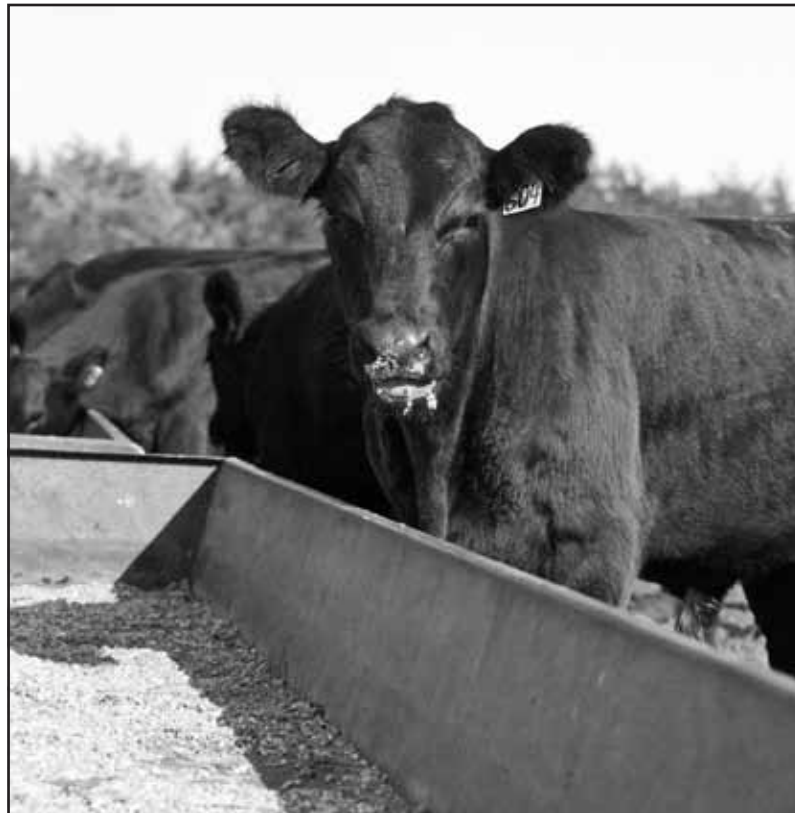
program for the Iowa Green Tag Preconditioning Certificate that also includes vaccination for *Haemophilus somnus* and an option for *Pasteurella*, for which he always vaccinates. Additionally, common practices like castration, dehorning, and treatment for lice and internal parasites are required by the program.

Ideally, Behrens recommends, calves should be processed two weeks before they're pulled off the cows. Green Tag requirements include a 30-day weaning period. Carrying preconditioning one step further, the Gold Tag Preconditioning Certificate requires a 45-day weaning period and a booster two to three weeks after the initial weaning vaccinations.

Deworming is an especially important part of preconditioning. The *Beef Cattle Manual* says that, in contrast to adult cattle, calves don't acquire full immunity to gastrointestinal parasites until about a year after they're weaned, so weaned calves are very susceptible to worms. Internal parasites cause reduced appetite and ability to respond to vaccination, and suppressed immune function. Producers should consult their local veterinarian for assistance identifying the most appropriate product to use for their area and current conditions. In west central Iowa, Behrens recommends a branded, injectable dewormer.

The occurrence of subclinical coccidiosis during receiving is also common; all receiving rations should contain a coccidiostat like Deccox® (decoquinate), Bovatec® (lasalocid) or Rumensin® (monensin).

Proper preconditioning nutrition should optimize the condition and health of calves for the next phase of their life, adding weight at an economical cost, minimizing the risk of digestive disorders and disease, and achieving specific target weights for cattle by sale or shipping dates, the *Beef Cattle Manual* says. Bawling calves respond best to highly palatable feed; it helps minimize fasting directly following weaning and can help reduce stress the first week after weaning. Cattlemen should feed good-quality grass hay for the first 24 hours after weaning before offering a receiving diet that includes grain. With dry-matter intake low during weaning and receiving periods, preconditioning rations should be designed to maximize intake and provide greater concentrations of required nutrients.



Arthur Behrens, Templeton, Iowa, says 90%-95% of his clients have a preconditioning protocol for weaning calves.

## Early weaning

With dry conditions and pending drought in parts of the country, early weaning may be a viable option for some cow-calf operations. Typically, calves are weaned at 6-8 months of age. According to the *Beef Cattle Manual*, research suggests calves can be weaned effectively as early as 45 days of age. However, weaning at 90-120 days of age tends to produce optimum results because it allows more time for rumen development. Behrens prefers to precondition calves at 4 months of age, just prior to weaning.

Advantages of early weaning include lower cow nutrient requirements, decreased stress on dry pastures, improved body condition of cows, improved conception rates and a potentially tighter calving season, improved calf performance and additional marketing options for calves that differ from the normal cycle.

On the other hand, early weaning also requires more time and attention to management in order to realize these advantages, increased stress and slower calf performance if calves aren't properly managed, increased cost of feeding calves a higher-quality ration, and, potentially, additional facilities to feed calves. Early-weaned (at 6 to 16 weeks old) calves and calves weighing less than 350 lb. require nutrient-dense diets because they can't efficiently digest

moderate- and low-quality roughage. Receiving diets for young and light calves should be highly palatable, and high in protein and digestible carbohydrates.

The higher costs of additional management and processed feed for calves may make early weaning less attractive compared to leaving the calf on the cow. But, in times of drought, it may be the most profitable option. Leaving the pair together may mean calves will perform poorly since they have to compete with cows for limited forage, the *Beef Cattle Manual* says. Additionally, the body condition of cows may deteriorate more rapidly, lowering conception rates and lengthening the next year's calving season. Stress to the pasture may also have long-term consequences, reducing forage production and growth of desirable plants, while increasing growth of less desirable plants. When you consider the alternatives, the advantages of early weaning may outweigh the disadvantages when grass is in short supply.

In the end, preconditioning is likely very specific to the ranch; in reality, any practice that reduces stress on cattle during the first weeks after weaning and reduces the risk of health problems, improves gain, and minimizes wear and tear on facilities and people is a good one.