

# Seven Steps to Profit

Make decisions to drive profit past weaning a calf.

by *Miranda Reiman, Certified Angus Beef LLC*



► Tom Williams, owner-manager at Chappell Feedlot, has a history of working with ranchers to create profit for both retained-ownership and purchased cattle since the early 1990s.

PHOTO BY STEVE SUTHER

**W**hat producers do on the ranch sets the stage for value at the feedlot and all the way to the consumer.

Tom Williams, owner-manager at Chappell Feedlot, has a history of working with ranchers to create profit for both retained-ownership and purchased cattle since the early 1990s. Drawing on those years of experience at his western Nebraska feedlot, Williams highlights seven ranch-management practices with proven impact on the end result.

## Step 1

### Profit preparation starts early.

“Management of the pregnant cow has lasting impacts on her calf through the feedlot and ultimately on end-product merit,” says Williams, who recommends supplementing cows with protein late in gestation.

Many animal scientists have looked into fetal programming to see what effect cow herd nutrition has on the subsequent calves. Rick Funston, of the University of Nebraska–Lincoln (UNL), recently authored a review of the data and found steer progeny from supplemented cows had up to 38-pound (lb.) heavier weaning weights, 14-lb. to 40-lb. heavier carcass weights and increased marbling. The progeny in the supplemented treatment had up to 14-percentage-point higher USDA Choice grading than their contemporaries in the control herd.

Adequate cow herd protein consumption improves replacement heifers, too. Those born to supplemented cows reach puberty earlier, have higher pregnancy rates and go on to have a greater percentage of their own calves born early in the season.

## Step 2

**The importance of calf health cannot be overstated.** It begins with “best practices” at calving. “Quality and quantity of colostrum intake during the first few hours after birth have a tremendous influence on long-term calf health,” says Williams. Ensuring calves have a chance to suck shortly after they are born is key, along with scours prevention.

“This is important beyond the obvious impact of keeping the calves healthy at the ranch, but has further impact on feedlot performance and carcass traits,” Williams says.

Lung adhesions indicate sickness at some point in an animal’s lifetime. A nine-year analysis of more than 62,000 calves in Iowa’s Tri-County Steer Carcass Futurity (TCSCF) found the presence of lung adhesions was negatively correlated with

carcass quality, performance and profit.

Cattle that were never visibly sick and had no adhesions were heavier at harvest (1,185 lb. compared to 1,138 lb. for those treated cattle with lung adhesions) and took fewer days to get there (165 days vs. 179 days).

The non-treated, healthy cattle reached 68.4% Choice and above, compared to 53.8% Choice and above for the cattle that had adhesions and received treatment. Even more dramatic was the drop in *Certified Angus Beef*® (CAB®) brand acceptance — from 17.8% to 7.6%.

## Step 3

### Maintain a solid vaccination program.

At four to six weeks prior to weaning, boost modified-live virus (MLV) vaccinations and vaccinate against pasteurella. At weaning, give calves another modified-live booster and deworm them.

**Table 1: Beef quality premiums, per hundredweight compared to per head**

CH/SE spread	Dollar advantage with CAB® premiums included		
	\$3.50	\$4.00	\$5.00
\$8	\$30.60	\$31.96	\$34.68
\$12	\$41.55	\$42.42	\$45.13
\$14	\$46.33	\$47.69	\$50.41
\$16	\$51.60	\$52.96	\$55.68
\$20	\$62.13	\$63.50	\$66.22

**Table 2: Dollar return to superior genetics due to carcass quality and performance — Chappell Feedlot**

Choice-Select price spread	Choice and CAB® premiums/hd.	Feed efficiency savings/hd.	Total net advantage/hd.
\$8/carcass cwt.	\$34.68	\$45.00	\$79.68
\$16/carcass cwt.	\$55.68	\$45.00	\$100.68

“We’ve found that calves that have received two rounds of modified-live vaccine within six weeks prior to arrival at the feedlot have nearly zero death loss,” Williams explains. “We’ll also pull and treat about one-third the number of those calves compared to calves that received only one MLV prior to shipping.”

#### Step 4

**Consider calendar adjustments.** Several ranchers who retain ownership at Chappell Feedlot chose to early-wean to save forage and possibly improve quality grade.

In the same herd, year-to-year comparisons showed a 27-percentage-point increase in Choice grading and an 18-point advantage in CAB-brand qualifiers for calves weaned at 125 days of age vs. 200 days of age.

“For every three days the calf is weaned, there is one extra day’s worth of forage for the cow to graze,” says K.C. Olson, Kansas State University (K-State) animal scientist. “For example, if the calf is weaned 30 days earlier than normal, carrying capacity of any given pasture ought to increase by 10 days per cow.”

That’s to say nothing of the value of increasing cow body condition score (BCS) by up to 2 points. “How much brome hay, corn, soybean meal and mineral are required to add 100 pounds of liveweight to a mature cow?” Olson asks. Today, that’s between \$180 and \$210 per BCS, bringing that total value to around \$400.

There’s also a marketing benefit. The calves will go on feed earlier, and that should help avoid the typical price drop from mid-April to mid-May, too.

#### Step 5

**Everything in moderation.** Another way to increase calves’ marbling score and predictability on feed is to use implants judiciously. If optimizing quality grade is a goal, then producers retaining ownership should consider foregoing the calthood implant at the ranch and moving forward with no more than two properly dosed implants at the feedlot. Implant programs can be tailored to fit specific cattle and marketing objectives.

“In order to obtain advantages in efficiency and growth, cattle need to be on a nutritional plane that achieves at least 2 pounds of gain per day to get any benefits from an implant. This also protects the

marbling that has begun to develop at an early age,” Williams says.

#### Step 6

**Genetics rule.** “All of these management steps will add value, but it’s important to understand that genetics can greatly enable or limit success,” Williams says.

Take the progeny he fed from a herd stacked with three generations of breeding by artificial insemination (AI), for example. Those calves gained half a pound better each day than the yard average. They converted at 5.4 lb. vs. 5.8 lb. of feed per 1 lb. of gain on average. That combination of growth and efficiency adds up to a \$45-per-head advantage.

The AI-bred group reached 97% Choice, with 56% CAB compared to the 75% Choice and 24% CAB average for other calves at Chappell Feedlot. With an \$8 Choice-Select spread and \$5 CAB premium, that quality is worth \$34.68 per head more (see Table 1). When the Choice-Select spread moves to \$14, the increased Choice and premium Choice grading adds up to \$50.41 per head. On a relatively high \$20 Choice-Select spread, the total advantage for genetics with improved marbling increases to \$66.22 per head.

Similar comparisons can be made between average cattle and those bred to include more ribeye, muscling and dressing percent.

#### Step 7

**Use all available tools.** “The genetics are out there in the hands of our customers,” Williams says. “When we get the cattle here, we use ultrasound to maximize each animal’s potential.”

Use ultrasound to sort cattle and identify optimum end points, minimize discount carcasses, adjust days on feed to maximize profits, identify appropriate marketing programs and improve feed efficiency. Customers use the group and individual carcass data they get back for selection and herd improvement. Keeping an eye on historical performance of calves from any given ranch provides more knowledge when it comes to timing and strategy in marketing.

Attention to these protocols will increase the odds of profitability, Williams says. “Many of our retained-ownership customers and suppliers are making decisions to drive profit past weaning a calf. They’re seeing their cows improve at the ranch, and the calves are more

successful through our feedlot and in terms of carcass quality.”



**Editor’s Note:** *Miranda Reiman is assistant director of industry information for Certified Angus Beef LLC’s Supply Development team.*