10 Value-Added Marketing Opportunities

Kellie Curry Raper and Paul Beck

Objectives

- **Discuss two opportunities to add value to cow herd enterprises:**
  1. **Preconditioning and health management practices for calves.**
  2. **Retention and feeding strategies for cull cows for delayed marketing.**
- **Discuss other value-enhancing alternatives that may interest some producers:**
  1. **Cooperative marketing/purchasing.**
  2. **Strategic alliances and USDA-Verified programs.**
  3. **Custom cattle feeding.**

Many Oklahoma cattle producers do not take advantage of potentially value-adding management practices and marketing strategies, even with evidence that they add value to their cattle and profitability to their operation. Additionally, producers sometimes implement these recommended management practices, then fail to adequately market the practices when selling cattle. The first step in marketing cattle more effectively is to better understand marketing alternatives, evaluate the costs and returns for each alternative and assess which option has the most profit potential for their individual operation, given the operation's resources and constraints. A producer's final decision regarding practice adoption and marketing strategy is based on many things, including time, tradition, upfront costs, facilities, labor availability, perceived premiums, accessibility to marketing options and many others. As a cow-calf operator, there are two primary sources of revenue from cattle, including the sale of calves and the sale of breeding animals that reach the end of their useful life for the operation. This chapter discusses two means of adding value: (1) how calves are managed and marketed and (2) how cull cows are managed and marketed. Those alternatives apply to virtually every cow-calf producer. Some producers also may have an interest in other marketing alternatives. Additional information is presented in this chapter about other opportunities such as cooperative marketing programs, strategic alliances, custom feeding and direct marketing to consumers, i.e. freezer beef.

Each value-added alternative has pros and cons for an individual cattle producer—based on individual resources and constraints. The overriding economic criterion for evaluating each alternative is relatively simple in concept but not as simple in reality. Does an alternative opportunity add more value than cost to producer's cattle? How much risk and uncertainty is associated with adding value while incurring those additional costs?

Industry Trends Underlying Marketing Alternatives

The cattle industry, like most of production agriculture, faces ever-changing market conditions. Catalysts for change range from weather to changing consumer preferences. On the production side, for example, a long-term drought from 2011 to 2015 in the Southern Plains forced early calf marketing and herd reduction decisions through higher cow culling rate and even whole herd liquidation in some cases. On the demand side, consumers continue to voice greater interest in animal welfare, the environmental impact of production and healthfulness of meat choices. Amidst constant change, questions abound about how to add value to cattle and move beef from a commodity sector to a value-added product sector. In processing and retailing, the extra value typically occurs by developing processed, branded products. However, opportunities to develop branded products in the beef production sector of agriculture do not exist on a widespread scale for an average-sized production. However, there are opportunities to establish a positive reputation with cattle buyers. The emphasis for producers should be on identifying what can be done to individually or collectively add value for the buyer at the next production or processing stage.

For stocker operators, one of the most important factors affecting profits is calf health. Cattle feeders also recognize the value of cattle health on feeding performance and carcass characteristics. This has increased the focus on preconditioning calves at the cow-calf level to improve animal health by strengthening the immune system. Superior Livestock Auction is an electronic livestock auction with more than 8,000 active buyers and generally represents cow-calf operations with herds of 300 cows or larger

All Web addresses given in this chapter are subject to change. The links to these websites will be updated regularly at the Master Cattleman website at extension.okstate.edu/programs/master-cattleman.html

Table 10.1. Basic Description of Superior Livestock Auction Value-added Health Protocols*

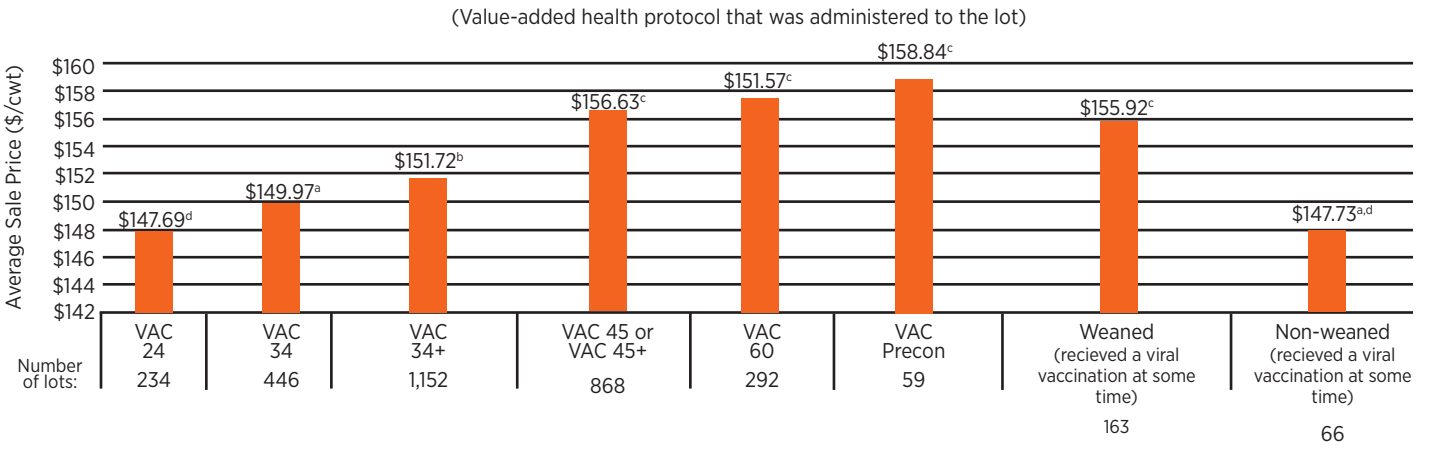
Health Protocol	*Protocol Basic Description*
VAC 24	Sold off the cow Vaccinations • 1 round (Clostridial, viral, Pasteurella) at 2 months to 4 months of age
VAC 34	Sold off the cow Vaccinations • 1 dose Clostridial at branding • 1 dose Clostridial, viral and Pasteurella two weeks to four weeks pre-shipping
VAC 34+	Sold off the cow Vaccinations • two doses Clostridial and viral at branding and two weeks to four weeks pre-shipping; one dose Pasturella two weeks to four weeks weeks pre-shipping
VAC 45/VAC 45+	Minimum 45 days weaned Vaccinations • (45) two doses Clostridial and viral; one dose Pasteurella; · (45+) two doses blackleg, three doses viral, two doses Pasteurella
VAC 60	Minimum 60 days weaned Vaccinations • two doses Clostridial and viral, one dose Pasteurella
VAC PreCon	Purchased cattle Weaned 60 days prior to delivery Vaccinations • two doses Clostridial • two doses Viral • one dose Pasteurella

Source: Superiorlivestock.com, *Detailed information available on website

(Odde, November 2019), In 1995, 40% of lots sold through Superior were unweaned calves with no vaccinations. By 2013, that percentage was 0%, and from that time forward, even unweaned calves marketed through Superior have at least some level of vaccinations prior to marketing. Table 10.1 gives a brief overview of Superior Livestock Auction's value-added health protocols. Figure 10.1 reports average prices across those health protocols for Superior's summer auctions for Summer 2020. The auction results indicate the benefits of preconditioning are recognized by buyers via market premiums for extended weaning periods and expanded vaccination protocols. A portion of this chapter will discuss implementation of calf health management practices and preconditioning calves as a means of adding value to the cow-calf enterprise.

Cow herd owners may not realize that 10% to 20% of their total revenue from the cow herd comes from selling cull cows. Indeed, many times the annual profit is from the sales of cull livestock. Cow herd owners often simply remove cows from the herd as quickly as possible when they are found to be open or their health warrants culling. However, research suggests that a planned management and marketing program for cull cows may add value to the cow-calf enterprise. For these reasons, discuss marketing strategies for cull cows as a means of adding value to the cow-calf enterprise is discussed.

The average size cow herd in Oklahoma is about 40 head. Many smaller cow-calf producers are at a comparative disadvantage in one or more ways. Research at OSU (Figure 10.2) indicates higher prices were paid for larger sale lots at various livestock markets across Oklahoma from 2010 to 2013 (Mallory, et al 2016), confirming the results of many similar studies. Most cow herd owners in Oklahoma cannot market large sale lots of uniform calves, but the data shows



a, b, c, d Means without a common superscript differ (P<.05)

Figure 10.1. Factors affecting the sale price of beef calves sold through Superior Livestock Auction video sales, Summer 2020. Source: Drovers.com

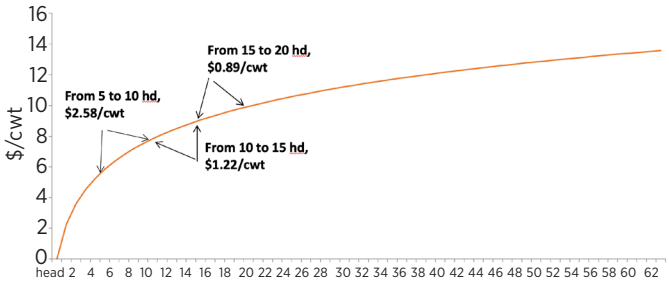


Figure 10.2. Lot Size Premiums ($/cwt) for 2010-2013 Oklahoma Quality Beef Network Sale Site Data, OQBN and non-OQBN sale dates. Source: Mallory, et al 2016.

that even moving from selling in single head lots to selling in five-head lots can make a significant difference in sale price. Also, many producers in Oklahoma are interested in upgrading their cow herd genetics and making management changes to increase uniformity of their calves in terms of weight and frame size. An alternative adopted by small groups of producers in some states is to form a cooperative marketing organization. These have varying objectives. Some are designed to upgrade cow herd genetics, some to pool calves into larger, more uniform lots for marketing and some to purchase inputs collectively.

Beginning in the 1990s, the concept of value-based marketing in the beef industry led to the development of strategic alliances. Such alliances typically fall into one of two categories: consumer-based programs and calf-based programs. These programs often attempt to better understand buyers' needs and determine what can be done to improve coordination and meet those demands. One of the key reasons cattle feeders state for joining alliances is to access carcass data (Schroeder et al. 2002). The interest in having carcass data comes from cow herd owners wanting to improve their cow herds and produce calves that have a better chance of meeting consumers' demands.

This chapter will discuss some dimensions of custom feeding producers should consider. With grid pricing, custom feeding is one means of getting feedlot performance and carcass data on calves produced. This information can assist cow herd owners in making improvements in genetics and management of the calves raised. However, feeding cattle extends the ownership period for the producer. One implication is that custom feeding adds significant risks for the producer even though for some, it also may increase the possibility of being paid for assuming the added risk. Finally, this chapter will offer some resources for consideration of direct-to-consumer marketing of beef.

Preconditioning Calves

Many cow herd owners in Oklahoma manage the cows to calve in the spring, then sell calves around October at weaning. Unfortunately, because so many producers sell calves at about the same time, calf prices are typically at their seasonal low during this time. Calves are stressed from being separated from their mothers, transported to unfamiliar surroundings, commingled with other calves and put on an unfamiliar diet. Those factors frequently combine to cause sickness and sometimes death.

An alternative is to keep calves on the ranch after weaning for a preconditioning program (Lalman and Mourer 2017). Preconditioning typically bundles the management practices of castration, dehorning, deworming, feed bunk training with a supplemental nutrition program, a 45-day, on-ranch weaning period and two rounds of respiratory vaccinations into a marketing package. After preconditioning, calves are marketed with a stronger immune system, which enables them to cope with the stress from transportation, handling, unfamiliar surroundings, commingling and a new diet. Research shows preconditioned calves perform better in a stocker or feedlot setting and in carcass quality. Through preconditioning, cow-calf operators can influence the market value of their calves by following industry-accepted management practices.

Preconditioning programs with varying names and management requirements are sponsored by cattle organizations, livestock markets and pharmaceutical companies. The Oklahoma Quality Beef Network (OQBN) program is sponsored by the Oklahoma Cattlemen's Association and Oklahoma Cooperative Extension Service (oqbn.okstate.edu). These types of programs require a minimum 45-day post-weaning phase, a specified animal health program, dehorning horned calves, castration of bull calves and bunk feeding.

Preconditioning involves added management time and cost on the ranch before marketing. These added costs must be weighed against the potential added benefits from marketing preconditioned calves. Table 10.2 is a partial budget to aid in evaluating the added costs and revenue factors. Preconditioning budget tools are available at beef.okstate.edu in a Microsoft® Excel spreadsheet. Producers can substitute their actual or anticipated values for highlighted cells and see the effects on net benefits. The top section of the budget (Table 10.2), traditional management, shows estimated revenue from selling calves at weaning. The next two sections, preconditioning management revenue and preconditioning management costs, show the revenue and costs, respectively from preconditioning calves. The last section (traditional versus preconditioning summary) compares the two marketing alternatives to arrive at net benefits.

Preconditioning Benefits

Benefits from preconditioning stem from a combination of three factors. First, additional weight gain during the preconditioning phase enables producers to sell more pounds (heavier calves) relative to selling calves at weaning. Second, seasonal prices typically increase from when calves are frequently weaned and sold in mid-October to marketing preconditioned calves in early December. Third, a potential price premium is associated with preconditioning management practices implemented at the ranch.

Additional Weight Gain

One benefit from preconditioning is selling additional

Table 10.2. Preconditioning Partial Budget Calculator.

Traditional Management Revenue	*Base*	*Alternate*
Ranch (marketing) weight (lbs.)	575	575
Shrink (%)	3.0	3.0
Sale weight (lbs.)	558	558
Price ($/cwt.)	155.00	155.00
Gross revenue ($/head)	864.51	864.51

Preconditioning Management Revenue	*Base*	*Alternate*
Days from weaning to marketing	55	55
ADG (lbs./day)	2.00	1.60
Ranch (marketing) weight (lbs.)	685	663
Shrink (%)	1.0	1.0
Sale weight (lbs.)	678	656
Price change from weaning to marketing ($/cwt.)	0.00	0.00
Estimated price slide ($/cwt)	-10.00	-10.00
Calculated price change due to heavier weight ($/cwt)	-12.04	-9.86
Price discount for increased flesh ($/cwt.)		
Management premium ($/cwt.)	10.00	10.00
Final price ($/cwt.)	**152.96**	**155.14**
Gross revenue ($/head)	1,037.30	1,018.28

Traditional vs Preconditioning Summary ($/head)	*Base*	*Alternate*
Traditional gross revenue	$864.51	$864.51
Preconditioning gross revenue	$1,037.30	$1,018.28
Increased revenue	$172.79	$153.77
Less preconditioning costs	$114.95	$90.29
Net return from preconditioning management	**$57.83**	**$63.47**
Weight gain (lbs.)	**120**	**99**
Total cost of gain ($/cwt)	$95.48	$91.56
Feed cost of gain ($/cwt)	$60.62	$49.01
Value of gain ($/cwt)	$143.51	$155.92

Preconditioning Management Costs	*Base*	*Alternate*	*Base*	*Alternate*
			Percent of Total	
Interest rate (%)	5.0	5.0		
Cattle interest ($/head)	6.51	6.51	6	7
Vaccine, health supplies and medicine ($/head)	10.75	10.75	9	12
Death loss (%)				
Death loss ($/head)	0.00	0.00	0	0
Labor ($/head)	13.20	13.20	11	15
Equipment ($/head)	7.50	7.50	7	8
Pasture ($/head)		5.00	0	6
Fertilizer ($/head)		23.19	0	26
Hay ($/head)	32.17		28	0
Feed/supplement ($/head)	40.07	19.39	35	21
Mineral ($/head)	0.75	0.75	1	1
Added marketing costs (tags, commission) ($/head)	4.00	4.00	3	4
Total cost ($/head)	**114.95**	**90.29**	**100**	**100**

pounds after the preconditioning phase. The example in Table 10.2 compares 1.6 and 2.0 pounds per day gains that translate into marketing an additional 98-120 pounds per calf after preconditioning, compared with the same calf at weaning. Heavier calves usually bring a lower price per pound than lighter calves. To account for that decrease in sales price per pound, a 10% slide is assumed. The Budget tool gives producers the option to insert the expected sale price for preconditioned calves instead of calculating the slide. BeefBasis.com is an online tool that helps producers forecast a price using futures markets and a historical basis from a livestock market located in the state. Even with a lower price, there is a significant benefit from marketing heavier calves after preconditioning.

Seasonal Price Increase

From 10 years of historical market report data (2003-2013) at Oklahoma City, the seasonal price increase for steers weighing 500 pounds to 550 pounds averaged $5.94 per cwt. between mid-October and the first week of December. However, producers should not expect this seasonal price change every year. A seasonal price increase was found in eight years out of 10 years, and the average increase was $2.04 per cwt. when omitting the two largest, atypical seasonal price increases. This more modest price change still translates into more income for producers from marketing preconditioned calves.

Management Premium

OSU and other university research has shown preconditioning is not only beneficial to animal health and performance, but also returns more money when sold at market. The premium for 2020 at the Superior Livestock Auction was approximately $11 per cwt., while OQBN premiums realized by producers in Oklahoma (Figure 10.3) were $10.00 per cwt. or above from 2011 through 2019

(weighted average with no quality adjustments). Without adjusting for other quality factors, OQBN participants received an average price of $11.93 per cwt. in 2019, more than calves of similar weight marketed with no preconditioning. OQBN premiums over non-preconditioned calves differ by gender and weight class, as illustrated in Figure 10.4, again without adjusting for other quality factors. However, this premium is not a guarantee. It depends on the reputation of the rancher, the quality of the calves, the preconditioning program, the number of value-added calves at the sale, the reputation of the livestock market and its manager and how the livestock sale is conducted. For example, selling on a day when fewer lots of value-added calves are at the sale is likely to dampen premiums since the likelihood of a critical mass of value-added calf buyers is probably also low for that sale date.

Other Sources of Added Value

A survey of Oklahoma cow-calf producers indicates 28% of producers do not castrate bull calves before marketing. The number of non-adopters jumps to approximately 50% for both deworming and feed bunk training. Weaning 45 days and two rounds of respiratory vaccinations have higher rates of non-adoption at 59% and 64%, respectively (Williams, et al. 2012). Some management practices, such as castration and dehorning, require labor, but are otherwise relatively low-cost with minimal on-farm holding period for healing prior to marketing. Other practices, such as two rounds of respiratory vaccinations and a 45-day weaning period require some upfront costs in addition to labor, as well as on-farm resources for keeping calves separate from cows during this period.

Even if it is not feasible for a producer to adopt the full bundle of practices required for a preconditioning program, there is still value for producers in adopting individual practices. Research points to premiums for specific practices implemented on Oklahoma ranches for calves sold in Oklahoma livestock markets. Williams et al. (2012) looked at premiums for calves marketed in 2010 across 10 livestock market sites and across 30 sale dates in Oklahoma. Two basic management practices readily verifiable by buyers at livestock markets are castration and dehorning. Steer calves received a $5.77 per cwt. premium over intact bull calves of similar weight, hide color and quality. Other studies have estimated this to be as high as $12 per cwt.. Sale lots with any calves containing horns were discounted approximately $3.00 per cwt. and the discount applied to the entire lot, not just to the calf or calves with horns. Other value-added practices create calf attributes that are not as readily verified. This is particularly true of many practices associated with formal preconditioning programs. Without third party verification, cattle buyers are left with some degree of uncertainty as to whether seller claims of practices such as administered vaccinations and extended weaning periods are true. Still, Williams, et al. (2014) found calves with 45-day weaning garner net returns of $5.13 per cwt. with a 60% probability of positive returns over unweaned calves while calves with respiratory vaccinations completed garnered $6.01 per cwt. in net returns with a 64% probability of positive returns over unvaccinated calves (Table 10.3).

Not all preconditioning programs include sorting as part of their protocol. In those cases where they do, cow-calf producers might receive a price premium for more uniform sale lots of calves. Recent research found a premium associated with uniform sale lots of $6.59 per cwt. (Stutts et al., 2012).

Condition can affect feeder calf prices positively or negatively. Thin calves may be discounted, especially if there is evidence of thinness being related to poor health or muscling, and those discounts can be significant. However, if associated with poor nutrition, thin calves may receive

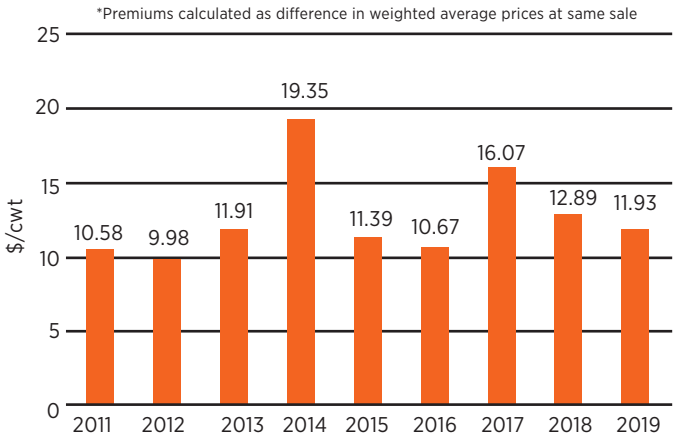


Figure 10.3. OQBN Premium over Calves Marketed with No Preconditioning ($/cwt)*, all calves, 2011-2019.

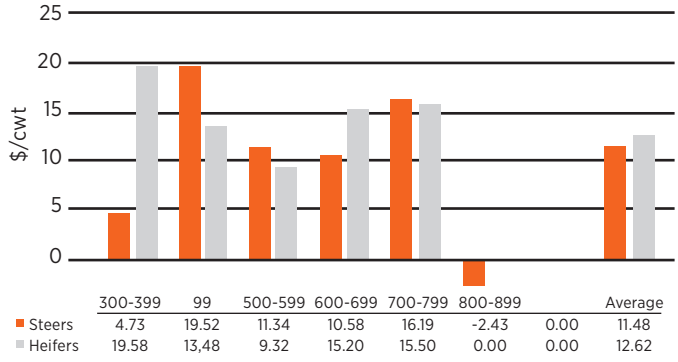


Figure 10.4. 2019 OQBN Premium by Weight Class and Gender over Calves with No Preconditioning ($/cwt).

Table. 10.3. Probability of Positive Returns for Various Management Practices.

Practice Adopted	*Net Returns ($/cwt)*	*Probability of Positive Returns*
Weaned	$5.13	0.59
Vaccinated	$6.01	0.64
Dehorned	$6.31	0.59
Weaned and Vaccinated	$5.36	0.59
Weaned, Vaccinated, and Dehorned	$10.98	0.67
Weaned, Vaccinated, Dehorned and Certified	$12.90	0.79

Source: Williams, et al (2014)
Data Source: Oklahoma Livestock Auctions

a price premium because buyers expect compensatory gains after improving the nutritional level. Fleshy calves are usually discounted, a recognition by buyers that no compensatory gains are likely. In some cases, fleshy calves are preferred as long as the degree of fleshiness is slight or moderate and is associated with health or thriftiness of the animals. Preconditioned calves that receive or are provided a high degree of nutrition may appear fleshy. Thus, in some cases, preconditioned calves may be discounted due to their fleshy condition. Sometimes, however, buyers may associate slight or moderate fleshiness with higher nutrition and health and may pay a price premium for preconditioned calves. Previous research found fleshy calves were discounted from $5.78 per cwt. to $10.35 per cwt. (Gadberry and Troxel, 2013).

In years past, a potential "stand alone" source of added value for cow herd owners was source and age verification on calves marketed. Source and age verification qualified cattle for specific beef export markets that imposed restrictions in the post-BSE era, allowing producers to capture any premiums associated with those export markets. As those restrictions have relaxed, premiums have dwindled for source and age verification as a stand-alone attribute. Superior Livestock Auction results through July 2020 indicate about $2.50/cwt. for source and age verification. Note that this premium is likely dependent on marketing calves where multiple buyers place value on the verification (Speer, 2020). That said, as consumers show more interest in food sources, source and age verification does have value combined with other attributes as part of a consumer-based marketing alliance program for calves. Such programs are discussed later in the chapter.

Summary of Benefits

Readers must be cautioned that the benefit examples given here are neither guaranteed nor additive. Still, preconditioning offers the opportunity to add value from several sources.

Preconditioning Costs

A key question is whether the added value from preconditioning offsets the added costs associated with the program. Preconditioning costs involve the added cost to feed calves for the 45-day preconditioning period, vaccination and deworming, dehorning and castrating and the opportunity costs of owning calves for the preconditioning period. Several Noble Foundation cooperators shared their cost data for 2004 and 2005. This enabled estimated costs to be as representative as possible.

The largest preconditioning cost item was for animal nutrition during the 45-day period. Feed/mineral and hay costs averaged $33 per head. Vaccination cost, a critical component of a preconditioning program, averaged $8.25 per head. Another significant cost is added labor and management time to follow the preconditioning requirements. Time may be more limiting to some producers than out-of-pocket expenses. Without question, preconditioning requires greater management oversight and more labor to implement. Those costs must be considered and weighed against the potential added gains from marketing preconditioned calves.

Producers also must consider opportunity costs. If calves are sold at weaning, the income can be used to pay expenses, reduce debt or potentially invest in some interest-earning account. Keeping calves on the ranch another 45 days means tying up capital or requiring additional borrowed funds and incurring the associated interest costs. Either of these is a cost that producers should consider when thinking about preconditioning.

Summary of Costs

Preconditioning is relatively expensive. Total costs often range from $60 per head to $70 per head or more though some producers report lower costs. Regardless of the exact amount, producers need to recognize the higher cost associated with owning calves through the preconditioning period.

Evaluating Preconditioning

Williams, et al. (2014) estimate that the expected net return from participation in OQBN's Vac-45 program in 2010 was $58 per head with an 80% probability of a positive net return. That number — a conservative one — includes premiums, the value of additional gain and the cost of preconditioning. However, individual producers must assess the added gains against the added costs for their own operation. Table 10.2 is a spreadsheet example of that process. Estimated costs are believed to be applicable to most VAC-45 programs and could be modified for other preconditioning protocols. Revenue from marketing calves at weaning is compared with marketing calves after a 45-day preconditioning program. Shaded cells in the spreadsheet can be changed to fit each producer's situation or to explore the sensitivity of results to changes in selected items. This example was intended to show close to actual costs and returns based on recent research in Oklahoma. As mentioned previously, the OQBN budget tool also could aid producers in deciding if preconditioning will return a profit using producer's individual input cost and marketing values.

The results would be less favorable with many circumstances such as lower average daily gains, lower seasonal price increases, lower premiums for preconditioned calves, higher costs, etc. On the contrary, with these same factors in reverse (higher average daily gains, larger seasonal price increases, higher premium for preconditioning, lower costs, etc.), the results would be more favorable. Producers must be careful to enter realistic values for their specific case.

Table 10.2 can also be used to find how sensitive net returns are to various changes in production, costs or market conditions. Using calculations from Williams et al. (2014) and Oklahoma City prices for 550 pound feeder calves, below are several budget changes and how they affect net returns. Note in each case, only one budget item was changed at a time.

Market Conditions

- A $2 per cwt. increase (decrease) in the seasonal price change from October to December results in an $11.90 per head increase (decrease) in net returns.

- A $2 per cwt. increase (decrease) in the price premium also results in an $11.90 per head increase (decrease) in net returns. Reducing the price premium to zero, which is possible depending on when and where calves are marketed, still results in a net return of $59.17 per head for preconditioned calves under the assumptions in this budget.
- A $2 per cwt. increase (decrease) in the final price results in a $11.90 per head increase (decrease) in net returns.

Production Experience

- A one-day increase (decrease) in the length of the preconditioning program results in a $3.02 per head increase (decrease) in net returns.
- A 0.1 per pound increase (decrease) in average daily gain results in a $9.70 per head increase (decrease) in net returns.
- Increasing death loss to 1.5% results in a $13.28 per head reduction in net returns.

Costs

- Increasing feed/mineral and hay costs $5 per head results in a $5 per head reduction in net returns.
- Increasing vaccination and animal health costs $2 per head results in a $2 per head reduction in net returns.

While actual changes will be dependent on the marketing year, this illustrates how changes in market conditions, production performance and costs can alter the expected returns from preconditioning. These potential changes help assess where the risks are and how these changes in specific areas can affect net returns.

Some resources for those interested in preconditioning can be found at beef.okstate.edu and oqbn.okstate.edu. and at the following sites.

- extension.okstate.edu/fact-sheets/does-preconditioning-pay-a-benefit-cost-decision-tool.html
- OQBN spreadsheet tool: agecon.okstate.edu/faculty/publications/3943.xlsx

USDA Verified Programs

Verifying management practices through a USDA verified program is another possibility for adding value to calves. There is typically a cost associated with qualifying cattle for these type of programs. Source and age verification is a good example of this. Premiums for age and source verification as a stand-alone attribute have decreased since Japan increased the age limit of the cattle they import from 20 months to 30 months of age in February 2013. However, age and source verification remains a strong signal to buyers of quality cattle and is often required by other USDA verified programs such as natural or grass fed, for example. Many of these programs are available and are driven by consumer demand.

USDA verified programs exist to meet any number of verification claims a producer may want to validate for their management practices on their cattle. Typically, the verification claims are easily defined so consumers can make purchasing decisions at the retail level. Source verification is the ability to trace beef back to the farm or ranch that supplied the cattle. Age verification is the ability to document and verify the age of the animal throughout the system, including at slaughter. Natural verification is the ability to document that no antibiotics, implants or other additives have been given to the animal. Producers must have valid calving records and be willing to share those records. But production records alone do not qualify cattle to be sold as verified. Verified claims have to be validated either through a USDA Process Verified Program (PVP) or a USDA Quality System Assessment (QSA) Program, both of which have auditing systems in place. PVP programs generally include age and source verification of cattle, but are also used to verify and market claims about other beef attributes such as preconditioning, all natural, etc. Each program is unique. QSAs were created in 2004 as a simpler version of PVPs primarily to facilitate source, age and non-hormone treated cattle (NHTC) verification for export markets. Most QSAs are only for source and age verification, but some also verify NHTC. For a more detailed discussion of QSA and PVP programs and their associated marketing options, see OSU Fact Sheet AGEC-612, available at extension.okstate.edu/fact-sheets/minding-your-cattle-ps-and-qs-basic-facts-on-source-age-and-other-claim-verification-through-pvp-and-qsa-programs.html.

Producers Access to a PVP or QSA Program

Local access to these programs is likely through an approved feedyard or livestock market under an umbrella program for a QSA or PVP. Interested producers would begin by exploring individual PVPs to determine whether they are already producing cattle with the potential to capture additional value beyond source and age verification. For example, some PVPs and all QSAs verify source and age, but some PVPs verify source and age along with other practices (such as preconditioning, antibiotic free or specific feeding programs). So if a producer's goal is primarily source and age verification, then a PVP offered by a breed association or information management company that entails only source and age verification is likely a good fit. Most USDA-approved QSA programs are administered through breed associations, feedlots or through the cattle feeding arm of a major packer.

The links provided in the next section list current PVP and QSA programs. Most provide information about the program's specific requirements for recordkeeping, as well as approved supplier listings, which may indicate specific local access points. That access point, whether a livestock market or a local feedyard,can provide more information about enrolling calves. To enroll a cow herd as an approved supplier in a PVP or QSA program, a producer completes an initial application that may ask for details about the cattle operation, calving season, production practices, etc. The program will then typically conduct an on-site evaluation at your ranch. At a minimum, PVP and QSA programs with source and age verification will require detailed birth records. Calf birth dates can be documented in one of two ways. The first is to document birthdates of the first and last calves from a herd's calving season. The entire calf crop from a herd for that calving season is then assigned the first calf's

birth date. Alternatively, producers can document individual calf birth dates for the entire calf crop. One implication for cow-calf producers is that if they do not have and/or do not wish to have a defined calving season, they need to keep individual calf birth records to qualify cattle for source and age verification.

Evaluating a PVP or QSA

Marketing cattle through PVP or QSA programs does not guarantee increased profitability, since the cost of qualifying cattle for programs is not free and premium levels are variable across programs and across years. For example, participation in natural verification programs may entail an initial evaluation, a per head verification fee, and occasional ranch audits. The ranch of origin may have to be audited every three years at a cost of $1,000 or more. Premiums can help to offset those fees. Speer (2020) estimated Verified Natural Beef premiums for steers at $17.78/cwt., Non-hormone Treated Cattle premiums at $7.29/cwt., and Where Food Comes From's (WFCF) Beef CARE certified premiums at $15.67/cwt. The loss of production from not using growth technologies and enrollment cost must be evaluated to assess if these programs are profitable for individual producers. Typical costs include fees for tags, audit costs, products required that are specific to the program, and perhaps additional annual fees or per animal fees. Part of a producer's profitability analysis should consider what the break-even number of cattle marketed through the program would be. Generally, participation in a QSA will be less expensive and perhaps less cumbersome than participation in a PVP since many PVPs require documentation and proof of attributes in cattle beyond age and source. Beyond cash outlay for participation, both types of programs require documenting and sharing cattle records with auditors and/or program administrators. Either type of program will also require keeping calving records for three years for auditing purposes.

Additional resources, including lists of USDA-approved PVP and QSA programs, protocols and audit procedures can be found at the following sites.

- http://www.ams.usda.gov/services/auditing/livestock-poultry
- CR-3279, Cow-calf Production Record at extension.okstate.edu/fact-sheets/cow-calf-production-record-software.html.

Marketing Cull Cows

Many producers cull and market spring-calving cows immediately after fall weaning, when cull cow prices are usually lowest, but the consistent seasonality of cull cow prices may provide opportunities to increase cull cow salvage value by retaining them for delayed marketing to capture seasonal price increases (Peel and Doye). Key factors in the profitability of delayed marketing of cull cows are retention cost (feed, labor and other costs), weight gain, cow health and market expectations.

Cows may be culled from the herd in the fall for one or more reasons. Cows are assessed for health and condition at weaning, may be pregnancy checked and found to be open (unbred) and may be culled prior to increased feeding requirements through the winter months. Producers keeping cows that have been pregnancy checked, then rechecked them in 30 days to 60 days may find some cows thought to be open are in fact pregnant. These can be reinserted into the herd and will calve in the spring. Putting bulls with cows thought to be open may result in some percentage of them being rebred. These might be kept until the spring or summer and sold as bred cows for considerably more than they would bring as open slaughter cows. Feeding cows for 30 days to 90 days may add value in several ways. Depending on the feeding system, cows may be heavier when marketed, may be in better body condition, and may reach a higher slaughter cow grade when harvested. In addition, cows will be sold typically in a higher price period than in the lower price months during the fall.

Cull cow marketing requires several considerations. Holding and feeding cows, sorting them into a separate group for rebreeding, pregnancy checking, etc. requires more management time and cost and perhaps more facilities or pastures. Most importantly, producers need to weigh the potential added benefits against the expected added costs of alternative cull cow marketing programs.

The potential added benefits and costs are addressed in Table 10.4, a partial budget, similar in structure to the one discussed earlier for preconditioning calves. It is also available at agecon.okstate.edu/faculty/publications.asp as a Microsoft® Excel spreadsheet. Producers can substitute their actual or anticipated values for the highlighted cells to see the effect on net benefits. The top section of the spreadsheet, traditional management, shows estimated revenue from selling cull cows after weaning, assumed here to be in October. The next two sections (cow feeding revenue and cow feeding costs) show the revenue and costs associated with holding and feeding cows for some period. The last section (traditional versus cow feeding summary) compares the two marketing alternatives to arrive at net benefits.

Cow Feeding Benefits

Benefits from holding and feeding cows for 30 days to 90 days beyond culling come from three primary sources. First is the potential weight gain from feeding cows, which may translate into more pounds of cows sold at harvest. Second is improving the body condition score (BCS) of cows during the feeding phase and potentially improving the slaughter cow grade at harvest, thereby adding value to the cull cow. Third, and perhaps the most influential factor, is marketing cull cows at a higher point in the seasonal price pattern.

Additional Weight Gain

How much weight cows gain in a feeding phase depends on several factors. One is the health and condition of cows when feeding begins. If there are questions about a cow's health, producers should sell her rather than risk having her die in the feeding phase. Cows with low to medium BCSs

Table 10.4. Cull cow retention partial budget.

Cow feeding partial budget	*OSU Budget*	*Your Budget*
Traditional management		
Cull cow (marketing) weight (lbs.)	1,100	0
Shrink (%)	5.0	0.0
Sale weight (lbs.)	1045	0
Price ($/cwt.)	50.00	0.00
Gross revenue ($/head)	522.50	0.00
Cow feeding revenue		
Beginning cull cow weight (lbs.)	1,100	0
Days on feed	90	0
ADG (lbs./day)	1.0	0.0
Fed cow (marketing) weight (lbs.)	1,190	0
Shrink (%)	4.0	0.0
Sale weight (lbs.)	1,142	0
Cull cow price from traditional management ($/cwt.)	50.00	0.00
Price change from cull date to marketing date ($/cwt.)	5.00	0.00
Price slide for heavier weight ($/cwt.)	-2.00	0.00
Price premium for increased BCS/quality grade ($/cwt.)	2.00	0.00
Final price ($/cwt.)	55.00	0.00
Gross revenue ($/head)	628.32	0.00
Cow feeding costs		
Interest rate (%)	5.0	0.0
Cattle interest ($/head)	3.58	0.00
Health supplies and medicine ($/head)	2.00	0.00
Death loss (%)	1.00	0.00
Death loss ($/head)	6.28	0.00
Labor and equipment ($/head)	6.00	0.00
Feed, hay, and pasture ($/head)	60.00	0.00
Additonal marketing costs (tags, commission, etc.) ($/head)	2.00	0.00
Total cost ($/head)	79.86	0.00
Traditional vs Cow feeding Summary ($/head)		
Traditional gross revenue	522.50	0.00
Cow feeding gross revenue	628.32	0.00
Increased revenue	105.82	0.00
Less cow feeding costs	79.86	0.00
Net return from cow feeding	25.96	0.00

(<6) will gain faster and add more total pounds than cows with BCSs in the 7 to 8 range. Producers may keep cows with lower BCSs longer than cows with higher beginning BCSs. Another key variable is the type of feeding program. Cows might be kept and grazed on stockpiled forages, grazed on wheat pasture, fed harvested forages and supplement or placed in a drylot feeding program on a high concentrate ration. The amount of gain and cost of gain will vary widely for these alternative programs. In our example in Table 10.4, we assume producers have stockpiled forages to graze cull cows. We assume cows begin the program relatively lean, with a BCS of 4 to 5, are kept for a 90-day feeding period and gain 1 pound per day.

Improved BCS and Slaughter Grade

AGEC-613, Cull Cow Grazing and Marketing Opportunities discusses the relationship between BCS and USDA slaughter cow grades (Peel and Doye). There is not a one-to-one correlation, but a BCS in the 3 to 5 range is approximately equivalent to a "lean" marketing category and a USDA grade of "cutter." For more information about cattle grades, see chapter 35. Cows in a feeding program that gain about 150 pounds can probably increase their BCS about two steps, say from BCS 4 to 6 or BCS 5 to 7. This also translates into upgrading from a "lean" to a "boner" category and from USDA "cutter" to USDA "utility" grade. Our example in Table 10.4 assumes a two-step increase in BCS and a step increase from "lean" to "boner" and USDA "cutter" to "utility" grade. The expected price increase associated with the grade increase is $1.50 per cwt.

Seasonal Price Increase

Prices typically increase for slaughter cows from the seasonal low in November through the seasonal high in July. However, there is no guarantee prices will increase or by how much. For example, cull cow price levels fell dramatically from 2018 to 2019 as U.S. federally inspected cow slaughter was the highest since 2013 and as cow slaughter capacity saw limits. The budget in Table 10.4 assumes an average slaughter cow price increase of $5 per cwt. from November to February. Note that some years the seasonal price increase is lower and some years higher. Whether market influences drive general price levels higher or lower, the seasonal pattern tends to persist. The $5 seasonal difference can be adjusted in Table 10.4 to reflect price levels more reflective of the producer's current marketing period.

Summary of Benefits

The example in Table 10.4 shows combined added benefits before considering added costs of $105.92. Added revenue comes from marketing more pounds, marketing at a higher seasonal price and marketing cows with improved BCS and USDA slaughter cow grade.

Cow Feeding Costs

The key to determining net benefits is whether or not added benefits discussed in this chapter cover and exceed the added costs for holding and feeding cows. The largest expected cost for feeding cows is for feed. In this case, that means stockpiled forage or pasture cost and the added cost for supplement. Besides being the largest cost item, pasture and feed costs will vary greatly by the condition of the cows, type and quality of forage and type and cost of supplement. Therefore, producers need to carefully consider the feeding program and estimate costs when planning to feed cows. Figure 10.5 illustrates weight gain and feed cost for a relatively low-cost dry-lot system versus a native pasture retention system, taken from a 3-year joint study by OSU and The Samuel Roberts Noble Foundation (Raper, et al., 2017). The differences in cost and gain between systems can be substantial.

While not a large cost item on a dollar per head basis, another key item is labor and management. Not included in the Table 10.4 budget is the cost of facilities. Since cull cows on feed are likely managed as a group separately from the

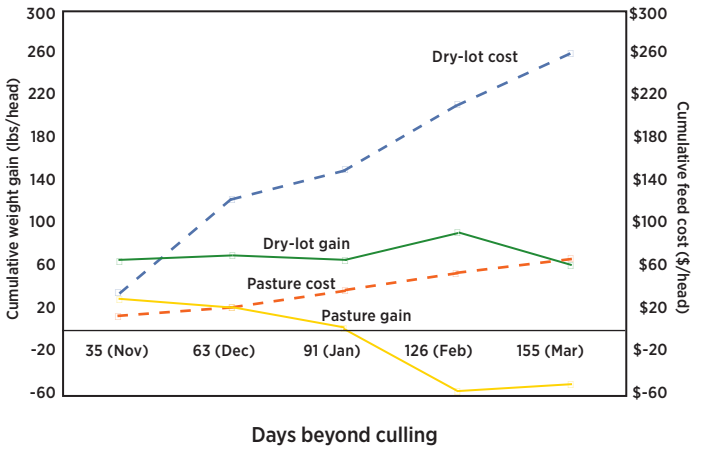


Figure 10.5. Weight Gain and Feed Cost for Cull Cows by Retention Feeding System.

breeding herd, producers need to have additional facilities or pasture for cull cows. Not considered here also is the fact that feeding cows utilizes forage resources that might be used for another cattle enterprise, either more brood cows or stocker cattle.

Summary of Costs

Feeding cows is relatively expensive. Our example shows added costs of $81.29 per head. Longer, more intense feeding programs would increase per head costs. Producers need to be aware of these added costs when considering a feeding program.

Evaluating Cow Feeding

A consideration in feeding cull cows is risk. Cow health is an imperative. Only healthy cows should be considered for feeding. Beginning weight and BCS are important to determine the potential weight gain and increase in BCS and/or slaughter grade. Heavier cows with a BCS 7 or above may not be expected to gain enough weight and change enough in BCS and slaughter grade to be likely candidates for an economical cow feeding program. Raper, et al., 2017 discuss the impact of BCS at culling on net returns from marketing cull cows at fall culling versus retaining cull cows for delayed marketing. Net returns were examined across five marketing periods (at culling and monthly through March) and two retention systems (native pasture and low-input dry lot) relative to BCS at culling as a sorting trigger. Cull cows were classified as thin (initial BCS <5), medium (initial BCS ≤ 6), or heavy (initial BCS > 6) based on research and discussions with ranch managers regarding how they sort cows when addressing nutrition and feeding regimens (Encinias and Lardy, 2000).

Generally, retaining cull cows in the native grass pasture system was more profitable than retaining them in the low-input dry lot system (Amadou et al. 2013). When BCS scores at culling are considered, thin and medium cows were typically more profitable than cows with higher initial BCS, regardless of the feeding system (Figures 10.6 and 10.7). Initial BCS appears to be an important influence on net returns from retaining and feeding cull cows beyond the culling date. As such, initial BCS should play an important role in the decision of whether to sell cull cows at the time of culling or to retain them for sale later when the typical seasonal price upswing occurs. Cows classified as heavy at culling generally yielded net returns that were statistically zero or negative relative to revenue at culling, regardless of retention system or pricing method. Cows with lower initial BCS scores generally yielded positive net returns above revenue at culling in a native grass pasture retention system, though net returns were typically negative in the dry lot system. Average daily gain (ADG) decreased with time for each BCS category in each management system, but thin and medium cows tended to have higher ADGs than heavy cows in each system.

From a practical management perspective, study results suggest heavy cows should be sold immediately after culling, regardless of the feeding system. For those cull cows with lower BCS, the seasonality of cull cow prices provides opportunity for increasing the cow's salvage value. For more information on how to assign body condition scores to beef cows, see chapter 20.

Further, Table 10.4 can be used to determine how sensitive net returns are to changes in certain assumptions. Note in each following example, only one budget item is changed at a time.

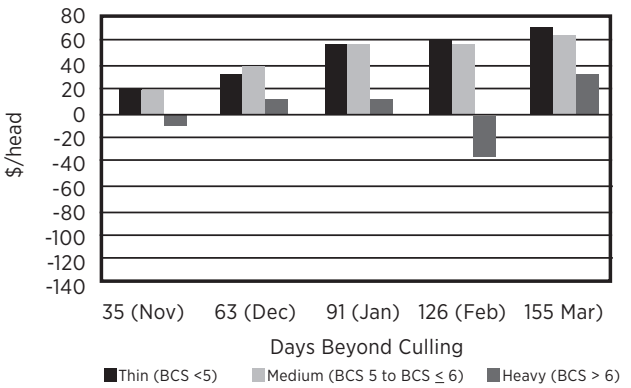


Figure 10.6. Net Returns ($/head) By Body Condition Score Across Marketing Periods for Cull Cows Retained in Pasture System, Estimated Prices (2003-2010).

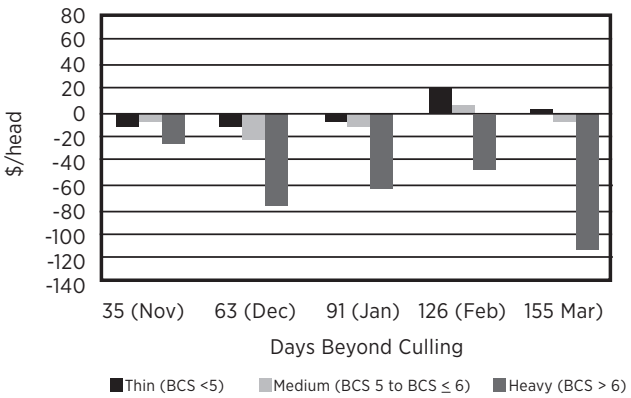


Figure 10.7. Net Returns ($/head) By Body Condition Score Across Marketing Periods for Cull Cows Retained in Dry Lot Pasture System, Estimated Prices (2003-2010).

Market conditions

- A $2 per cwt. increase (decrease) in the seasonal price change from October to January results in a $22.62 per head increase (decrease) in net returns.
- A $2 per cwt. increase (decrease) in the price premium for increased BCS/slaughter cow grade also results in a $22.62 per head increase (decrease) in net returns.
- A $2 per cwt. increase (decrease) in the final price results in a $1.74 per head increase (decrease) in net returns.

Production experience

- A one-week increase (decrease) in the length of the feeding program results in a $3.43 per head increase (decrease) in net returns.
- A 0.25 per pound increase (decrease) in average daily gain results in an $11.01 per head increase (decrease) in net returns.
- Increasing death loss to 2% results in a $5.88 per head reduction in net returns.

Costs

- Increasing feed, hay and pasture costs $10 per head results in a $10 per head reduction in net returns.
- Increasing vaccination and animal health costs $2 per head results in a $2 per head reduction in net returns.

The above confirms the importance of seasonal price changes, change in the premium for increased BCS and slaughter grade, average daily gain and feed costs. These variables help identify the key risk factors in evaluating a cull cow feeding program.

Some resources for those interested in feeding cows can be found at the following sites.

- extension.okstate.edu/fact-sheets/beef-cull-cow-management-and-marketing-alternatives.html#seasonality-and-resources
- extension.okstate.edu/fact-sheets/marketing-cull-beef-cows-does-body-condition-score-matter.html

Cooperative Marketing Programs

Cooperative marketing programs can be very diverse. They are cooperative in the sense of producers working together toward a common goal or mutual objectives. But they need not be organized legally as a cooperative form of business. Three specific objectives of such programs are: (1) add value to calves through improved cow herd genetics, (2) add value to calves by increasing uniformity of calves and marketing in larger sale lots, and (3) lower production costs by cooperatively purchasing inputs.

People Issues

Perhaps nothing is more important in considering a cooperative marketing program than ensuring everyone who agrees to work together understands and agrees to the objectives of the program. Everyone must understand that each person must adhere to the requirements in order to participate. Any cooperative effort can be undermined by one person not doing what is expected of everyone. Commitment to the program is essential.

Another essential ingredient is leadership. One person or a small group must assume the leadership role in organizing potential participants, accumulating information, planning and conducting meetings, etc.

Producers are encouraged to write clearly and specifically the objectives and requirements of each cooperator. Undoubtedly at some future time, there will be a challenge or question raised about someone's involvement. Having everything in writing will help avoid selective listening and miscommunication.

Genetic Improvement

If the goal is to improve the genetics, producers should purchase or lease bulls with similar attributes, or agree to artificially inseminate (AI) cows with semen from bulls with similar attributes. This may involve a common breed or breeds and a set of criteria such as breeding and carcass EPDs (Expected Progeny Differences). Typically, producers determine a set of common management practices, such as beginning and ending breeding dates to shorten and target the calving period, for example, 60 days in length.

Then progeny from the commonly-selected genetic base are typically marketed at the same time. Marketing programs can vary. The program may be designed so producers can retain heifers for their cow herd and only market steer calves. Producers may choose to market calves independently or advertise and market them as a group through a local livestock market or directly to buyers. Most important is the objective of the group. Much also may depend on the number of animals, location of producers or other factors.

Larger, Uniform Sale Lots

A second, common objective of a cooperative marketing program is to market more uniform calves in larger lots. This can be done independently of using common genetics and management but is also a logical extension of the genetic improvement objective. Having similar genetics and cows that calve in a predetermined period (based on the predetermined breeding period) are means of moving toward more uniform sale lots. Producers typically also have a common set of management practices to follow after calving. These often follow a preconditioning protocol. This, too, increases the uniformity of calves marketed in terms of weaning date, nutrition program, vaccination program, castration, dehorning, etc.

Actual marketing of these calves may differ according to the objectives of the cooperative group. Calves may be marketed by each producer independently, marketed at a predetermined livestock market on a set date, marketed in commingled lots at a specified market and on a set date, marketed directly to buyers or retained for a stocker or feeding program.

Cooperative Purchasing of Inputs

While this chapter's focus is on adding value, some

producer cooperatives are formed to purchase production inputs cooperatively. They determine the needs of producers in the group, determine appropriate specifications, solicit bids and purchase from the chosen bidder. The decision may not be based on the low bid, but may consider reliability and reputation of the bidders as well. The group must determine the criteria on which they will base group purchases.

This type of cooperative program may be independent of improving genetics and value-added marketing or may be an additional objective. Groups have found that local suppliers are often unwilling to bid or are unhappy when they are not the chosen bidder. However, they quickly learn that to win the cooperative group's business, they must be competitive both in price and service.

Evaluating a Group Marketing Program

Forming a group of producers with clearly defined, common objectives does not occur overnight or easily. If producers have a starting date in mind, they must start planning several months in advance. Such an effort takes time, numerous planning meetings, some research or use of outside resources and some risk taking. Often, experienced groups are willing to share their experiences. Some have websites and will communicate quickly and efficiently via e-mail. Experienced groups often can be especially helpful in identifying pitfalls an interested group might avoid. However, each group effort is different and each may have its own unique problems and pitfalls.

Participating in a Strategic Alliance

Strategic alliances as used here are broadly defined. Some alliances prefer referring to themselves as a cooperative, partnership, marketing program or some other term. Here, they are all categorized as strategic alliances. Strategic alliances in the beef industry typically enable producer participants to fundamentally maintain their independence for most production decisions. They also share information to more effectively price products and improve coordination among the vertical production-marketing stages.

Participation in an alliance may be done independently of the alternatives discussed thus far. However, each of the above alternatives may also be part of an alliance. Nearly all alliances have a targeted set of carcass characteristics. Increased uniformity may enable producers to more easily meet the target. Stated differently, increased uniformity reduces the number of carcasses that do not meet the criteria and which might be discounted or disallowed from the alliance program. Some require truckload lots of cattle. Thus, a value-added program that enables marketing on larger sale lots may fit one of these types of alliances. Seven alliances have formal ties with one or more feedlots where producers can custom feed cattle. Generally speaking, value-based marketing alliances are categorized as either consumer-based programs or calf-based programs. Consumer-based programs have predefined consumer product specifications and are seeking cattle to feed and market cattle that fit those specifications. Well known examples are Certified Angus Beef® and Creekstone Farms Premium Beef®. Calf-based programs are based on procuring calves that fit specified value requirements. An example is MFA Health Track Beef Alliance. Many are set up as USDA verification programs discussed earlier.

Information Needed

Producers need specific information regarding alliances they are considering joining. First, producers need to have a solid understanding of the quality of their production. Will production be compatible with what the alliance wants or will substantial capital investments and changes be needed to adhere to the requirements? Here are a few questions to ask:

- What are the objectives of the alliance? Does its objectives match yours?
- Is there a required commitment for number of head?
- What is the per head fee and/or capital commitment? What does that allow me to do or receive?
- What are the management requirements? Genetics? Preconditioning? Use of implants?
- Which feeders, packers and retailers are part of the alliance?
- Does the alliance have its own brand? Are cattle in the alliance targeted toward specific retail brands?
- How much have past participants benefited from the alliance?

Retaining Ownership through Custom Feeding

Retained ownership through cattle feeding is indeed risky and not for everyone. That represents one of the major disadvantages. Advantages include knowing how the cattle perform in the feedyard. Marketing fed cattle on a grid also provides information on how your cattle perform in carcass form. One desirable feature of grid pricing is that better carcasses do not subsidize poorer carcasses. Each carcass is essentially priced individually rather than all cattle in the pen receiving the same price. Most commercial feedlots have pens requiring 50 to 200 head to fill, making this only an opportunity for larger cow calf producers. Also, many of the best commercial feedyards maintain full residency of their pens. Contact the feedyard well in advance to ensure they will have pens available when your calves are ready to ship to them.

Questions to Ask

Producers interested in custom feeding are encouraged to ask several questions before determining where to feed or with whom to feed cattle (Gill, Barnes and Lalman). Here are a few:

- Does this feedlot typically handle your kind of calves (weaned, bawling, preconditioned, cattle off wheat or grass, etc.)?
- Will the feedlot manager provide examples of closeout sheets for similar kinds of cattle?
- Will the feedlot manager provide names of other customers as referrals?
- What receiving practices are followed and what rations are fed?
- What are their pen sizes?
- How are feed and services priced? How do these

compare with other lots? How often are cattle owners billed?
- Will feedlots provide financing? Risk management services? Insurance?
- Who determines when fed cattle are marketed? To which packer? By which pricing method?
- Does the feedlot sort fed cattle before marketing them?

Financing and Risk Management Considerations

Producers need to contact their lender before entering into a custom feeding arrangement. Similarly, it is wise to contact a futures market broker and assess risk management alternatives. This might be advisable even if the feedlot provides such services. Three-way agreements have worked well for some producers. These involve communication between the lender, broker and cattle owner. Margin and brokerage fees can be billed directly to the lender and be included in the loan agreement so stress is not caused during the hedging period for the producer (Eilrich, Ward and Peel).

Evaluating a Custom Feeding Opportunity

Producers should do some budgeting and risk assessment before entering into a custom feeding arrangement. The Microsoft® Excel spreadsheet, Oklahoma Beef Calf Retention Decision Aid 2.0, is available at beef.okstate.edu/pages/calculators and has a sample custom feeding budget to compute the fed cattle breakeven price. The tool allows producers to explore various retention scenarios beyond weaning, including custom feeding. The spreadsheet can be changed to fit each producer's situation or to explore the sensitivity of results to changes in selected items. Realistic values need to be used. It is advisable to use less optimistic values for selected variables than what may be experienced to see the sensitivity of the breakeven price to those variables. Some variables to consider changing, perhaps one at a time, include days on feed, fed cattle price, death loss, veterinary costs, conversion and ration cost.

Marketing Beef Directly to Consumers

Cattlemen marketing beef direct to consumers is not new, but COVID-19's disruptions in the meat supply chain certainly enhanced interest in this marketing avenue, both by producers and consumers. If you are interested in exploring this as a marketing avenue, some resources that might be helpful are AFS-3302, An Introduction to Finishing Beef and FAPC-232, Regulatory Landscape for the Direct Marketing of Meat and Poultry in Oklahoma. The Oklahoma Cattleman's Association publishes a list of members who market beef directly to consumers at okcattlemen.org/beef-direct-listing. You must be a member of the Association to appear on that list. Finally, the University of Florida's IFAS Extension offers a 4-part series of recorded webinars covering various issues related to Direct-to-Consumer Beef Marketing available at nwdistrict.ifas.ufl.edu/phag/2020/07/31/4-part-video-series-how-to-start-marketing-freeze-beef-or-beef-products/

Conclusions

Often, cow herd owners feel as though there are no opportunities for them to add value to their cow-calf enterprise. While no costless alternatives are available, alternatives do exist. Premiums (or positive net returns) for specific practices or bundles of practices are not guaranteed. However, research suggests for many practices, market premiums exist along with a high likelihood of positive net returns. Similarly, research suggests retaining cull cows can increase returns with the right conditions. Producers should make a retention decision annually for cull cows in the lower BCS categories considering the operation's available and potentially underutilized forage resources, cash flow needs, input prices and expectations of price movements.

The purpose of this chapter was to discuss a few alternatives. It should be repeated that none of these may appeal to some producers who are satisfied with marketing calves as they have in the past. Others may be looking for alternatives to consider and may or may not find alternatives discussed here attractive. In either case, producers need to recognize both the potential advantages and known risks associated with each alternative. In a cow-calf operation, good management and good marketing should go hand in hand.

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