

Department of Animal Science

ADDING VALUE THROUGH CATTLE HANDLING FACILITIES: “IF YOU CAN’T CATCH ’EM, YOU CAN’T ADD VALUE”

July 2014

James B. Neel, Extension Beef Cattle Specialist
F. David Kirkpatrick, Extension Beef Cattle Specialist
Clyde D. Lane, Retired Extension Beef Cattle Specialist
Justin Rhinehart, Extension Beef Cattle Specialist
Lew Strickland, Assistant Professor, DVM, MS, DACT

Cattle handling facilities are essential for a profitable cow-calf operation (Kirkpatrick, F.D. 1983). A handling facility can contribute to both the saving and making of money. Handling facilities offer the opportunity for added value by carrying out practices that are economically important, such as checking for pregnancy, applying health practices, controlling both internal and external parasites, implanting calf crop with growth stimulants, castrating, and dehorning. Without handling facilities these practices and others are not done. All of these contribute to the returns of a cow-calf operation by improving performance as well as reducing labor costs.

Another important item to consider is that a good cattle handling facility can reduce the probability of injury to the animals and producer as well as stress. Cattle that are stressed will experience reduced performance and immunity to disease, efficacy of vaccines, conception from artificial insemination and other physiological items.



A number of cow-calf producers conclude that they cannot invest in cattle handling facilities. Probably the greatest item in that conclusion is that they are not aware of the economic value of the practices that can be applied through the use of these facilities. The bottom line is that beef cattle handling facilities can improve the profitability of an operation. “If you can’t catch them, you can’t manage them.” In Figure 1 several management practices are illustrated that require the cattle to be restrained. Those are not all inclusive but are a must do.

Figure 1. Economically Important Management Practices in Feeder Calf Production

- Maintaining a short calving season
- Checking pregnancy of brood cows following breeding
- Conducting a breeding soundness examination (BSE) on herd bull(s)
- Using artificial insemination
- Maintaining cows in moderate body condition (BSE of 5)
- Implanting calves with a growth promotant
- Dehorning
- Deworming
- Vaccinating
- Carrying out external parasite control
- Weighing calf crop to evaluate performance of brood cows
- Preconditioning calf crop for marketing
- Reducing hay waste in storing and feeding
- Maintaining 30% clover in grass pastures
- Testing hay for feeding value
- Tattooing and branding
- Placing ear tags to reduce fly numbers
- Weighing calf crop
- Evaluating structural soundness of brood cows

As with any practice, constructing and using cattle handling facilities should be evaluated for effect on weaning or market weight, calf crop percentage weaned, cost of production, and market price.

The following tables demonstrate the production and economic returns from a 50-cow operation. The number of cows and calf crop percentage weaned comes from a summary of the producer response to questions when registered for the Master Beef Producer Program. The market prices are from the Tennessee Department of Agriculture and personal communication with market operators and UT farm management specialists.

Tables 1 and 2 illustrate the production and returns from a 50-cow herd that lacks the facilities to carry out the economically important practices outlined in Figure 1. The producer probably has some pens or lots that cattle can be used to sort off the cows and calves.

Table 1. Cow-Calf Production Without Adequate Handling Facilities

Number of Cows	50
Variable costs per cow	\$650
Total cost for herd	\$32,500
Number of calves weaned	35
Calf crop percentage weaned	70%
Number of steers	18
Number of heifers	17

Table 2. Cow-Calf Production without Adequate Handling Facilities

Cost per cow	\$ 650.00
Cost per calf weaned	\$ 928.00
Receipts from sale of calf crop	
Steers (18) 520 lbs. @ \$212/ cwt =	\$ 1,102.40
Heifers (17) 495 lbs. @ \$178/ cwt =	\$ 881.10
Total returns for calf crop =	\$34,840.20

Table 1 shows the production of a 50-cow herd with 70 percent calf crop weaned (Neel, J.B. 2013). These data are from the Master Beef Producer participants. Annual variable cost per cow was provided by Kevin Ferguson (2014) farm management specialist with the University of Tennessee. The total cost for the herd (\$32,500) was determined by multiplying cost per cow by 50. The number of steers and heifers in the calf crop were arbitrarily assigned by authors. Market prices were from the Tennessee Department of Agriculture’s Market Report.

What improvements in management of the preceding scenario could be modified through application of some of the economically important management practices in Figure 1? The producer improved his/her handling facilities by purchasing equipment with \$5,000 expenditure and can now use the facilities more effectively and efficiently.

Note that in Table 3, the number of cows in the herd were reduced from 50 to 40, 20 percent, by pregnancy checking and culling the open cows, poor performers and old cows. The calf crop numbers were designated to be 18 steers and 18 heifers by the authors. Due to improved management, the market weight increased 20 pounds per calf. This could easily be done by implanting with a growth stimulant, applying an insecticide ear tag, artificial insemination and other practices that could have been previously done if adequate handling facilities were available.

Table 3 illustrates production of the cow herd following application of economically important practices.

Table 3. Financial Statement of Cow Herd With Adequate Handling Facilities

Number of cows	40
Variable cost per cow	\$685
Total cost per herd	\$27,400
Number of calves weaned	36
Calf crop percentage weaned	90%
Number of steers	18
Number of heifers	18

Table 4. Financial Statement of Cow Herd with Adequate Handling Facilities

Cost per cow	\$ 685.00
Cost per calf weaned	\$ 761.11
Receipts from sale of calf crop	
Steers (18) 540 lbs. @ \$217	\$ 1,171.80
Heifers (18) 515 lbs. @ \$182	\$ 937.30
Total returns per herd	\$37,963.80

Table 4 summarizes the financial results of using handling facilities to carry out economically important practices. The variable cost of maintaining a cow increased from \$650 to \$685, (5.4 percent) due to the reduction in brood cow numbers (50 to 40) and increased calf crop percent weaned (70-90 percent) the total cost was reduced from \$32,500 to \$27,400 — \$5,100 or 15.2 percent less.

With the addition of adequate cattle handling facilities, the producer is capable of carrying out health and management practices to meet the criteria to market the calf crop through a feeder cattle marketing alliance. These sales have generally fetched from \$5 to \$8 per cwt more than calves sold through the traditional markets. The ability to carry out these practices required is basic to meet criteria for participation. The market price in Table 4 was increased \$5 per cwt with the assumption that the calves would be marketed in a feeder cattle alliance with the additional 20 pounds and improved market price. The return per calf increased from \$871 to \$1,054.55. This is an increase of \$183.55 or 21 percent.

The purpose of this presentation is not to illustrate all the changes in management and returns that could occur, but that come with adequate handling facilities. If a cow-calf producer is not carrying out the economically important management practices that require handling facilities, improvement and profitability will be hindered. Response would vary between operations and current levels of management.

Financial assistance is available to Tennessee cattle producers to either construct or update current facilities through the Tennessee Agricultural Enhancement Program (TAEP). For additional information, contact the Tennessee Department of Agriculture. Handling facilities can only pay off if used by the producer to improve the cow herd's production and reduce costs.

utextension.tennessee.edu



15-0027 Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.