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Adding Value to Your Calf Crop by Pre-Conditioning

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Feeder cattle buyers and feedlot managers have touted the virtues of preconditioned feeder calves for several decades now. The main objective of preconditioning feeder calves is to minimize the weaning stress (due to separation from the brood cow, adapting to a bunk-broke and trough-trained environment, adjusting to new people and surroundings, vaccinations to protect the health of the feeders during the transition period to the feedlot, etc.). It has been well documented that by reducing the weaning stress incurred, the investment in preconditioning feeder calves will pay dividends during and after shipment to the feedlot. However, that does not mean that buyers will always willingly pay for the value added from preconditioning feeder calves. In fact, most will admit they are only going to make one more bid than the next buyer. Therefore, feeder calf producers must fully describe their preconditioned feeder calves and market them in an environment where they will be compensated for the increased value.

What Does Preconditioning Mean?

Feeder calf preconditioning means different things to different people. In order to have at least an opportunity to get paid for what you do, the feeder calf producer needs to represent the product he is selling by fully describing the preconditioning program that the feeder calves have received. Many buyers want a detailed description of the preconditioning practices (a description of the feeding program, birth date of first calf, weaning date, a list of health practices performed with product type, product identification lot number, when they were performed and by whom, etc). The more documentation you provide, the more confidence the buyer will have in bidding for your feeders.

A common feeder calf preconditioning program includes a weaning program (separated from the brood cows, taught to eat from a feed bunk and drink from a water trough) and a complete health program (initial and booster vaccinations administered according to vaccine label instructions, deworming, castration, dehorning, etc.). These calves are weaned and taught to eat feed out of a feed bunk and to drink water out of a trough for a minimum of 45 days.

Some producers have been known to vary from this standard practice, but whatever method is used, it is very important for cattle producers to fully describe their preconditioning program. This way, buyers will be aware of the enhanced value of these animals and bid appropriately.

Marketing and Shrink

One cannot talk about marketing feeder calves without considering shrink. Feeder calves incur shrink when we gather and pen the cattle, sort the calves from the brood cows, sort the calves based on sex (steers and heifers), further sort the calves based on weight and uniformity, load the feeder calves, transport the feeder calves, and at the auction site. There is probably as much feeder calf shrink left on the farm (especially in the cow pen) as there is at the sale barn. Most cattle producers are unaware of how large shrink can be on feeder calves. Various studies have estimated feeder calf shrink to range between 10-15 percent when marketing the un-weaned feeder calf. On a 500-pound feeder calf that would be 50-75 pounds per head. If the market price is \$1 per pound, that is \$50-\$75 per feeder calf or about \$1,250-\$1875 per bull unit (25 head). Thus, feeder calf shrink could have a significant impact on your net farm income depending on the number of brood cows in your operation.

Feeder calves sold right off the brood cow incur a larger shrink than those that have been weaned and preconditioned. Un-weaned feeder calves incur the added stress associated with being separated from the brood cows, the stress of getting use to people and the pen environment, and being handled more during the sorting process. Whereas, preconditioned calves have recovered the shrink incurred during the gathering and sorting process, have adapted to people and the pen environment, and are use to being handled.

A conservative estimate by some cattlemen is that feeder calves will shrink about 2 percent from gathering and penning, 3 percent from sorting, and 1 percent during loading. An additional 2 percent is often incurred during transport to the nearest truck scales. Also, cattle buyers typically get a 2 percent pencil shrink on the gross weight of feeder calves weighed on the truck. Summing these five items will give you a total shrink of 10 percent for the non-preconditioned feeder calves. The 10 percent estimate of shrink for non-preconditioned feeder calves is believed to be a conservative estimate in this example. Of course, the amount of shrink depends upon many conditions such as weather, season of the year, time of day, nearness to working facilities, layout of the working facilities, cattle disposition, temperament of cattle working crew, number of cattle to be sorted, etc. Therefore, shrink may be more or less than the estimates described above.

The Economics of Preconditioning

In order to evaluate the preconditioning opportunity, let's compare a set of feeder calves sold at weaning (non-preconditioned) with a set a feeder calves sold after a 45-day preconditioning program. Both sets of feeder calves are assumed to be sold directly off the farm to an order buyer. Table 1 provides a detailed financial comparison of 75 feeder calves sold at weaning which were not preconditioned vs. 75 feeder calves sold after 45 days of preconditioning to help determine if preconditioning pays the cow-calf producer.

The feeder calves sold at weaning (non-preconditioned) are the simplest to evaluate. Let's assume 75 head of feeder calves, an initial weight of 550 pounds per head, zero days of preconditioning, 2 percent gathering shrink, 3 percent sorting shrink, 1 percent loading shrink, 2 percent transport shrink, and 2 percent pencil shrink. The sum of which is 10 percent total shrink. A 10 percent total shrink on a 550-pound calf per head will result in each calf losing 55 pounds per head. This amounts to about 4,125 pounds on 75 head (55 x 75). The resulting net pay weight would be 495 pounds per head (550-55).

Table 1. A financial comparison of non-preconditioned and preconditioned feeder calves.

Item	Feeder calves sold at weaning non-preconditioned	Feeder calves Sold after 45 days of preconditioning
		Feed cost, \$/ton \$110.00
Number of head	75	75
Initial weight, lbs.	550	550
Days of preconditioning	0	45
Facilities cost, \$/hd.	-	\$8.00
Feed & mineral cost, \$/hd.	-	\$47.83
Labor cost, \$/hd.	-	\$10.00
Medication cost, \$/hd.	-	\$11.00
Death loss, \$/hd.	-	\$5.69
Total cost, \$/hd.	-	\$82.52
Total cost, \$/hd/day	-	\$1.83
Average daily gain, lbs./hd./day	-	2.25
Gross pay weight, lbs.	-	651.25
Gathering & penning shrink, percent	2	-
Sorting shrink, percent	3	-
Loading shrink, percent	1	1
Transportation shrink, percent	2	2
Pencil shrink, percent	2	2
Total shrink, percent	10	5
Total shrink, lbs.	55	28
Net pay weight, lbs.	495	624
Sale price, \$/cwt.	\$115.00	\$110.00
Gross receipts, \$/hd.	\$569.25	\$686.13
Preconditioning cost, \$/hd.	\$0.00	\$82.52
Net receipts, \$/hd.	\$569.25	\$603.61
Difference in net receipts, \$/hd.		\$34.36
Difference in net receipts, total \$ per group		\$2,576.72

Assuming a sale price of \$115 per hundredweight, gross receipts of \$569.25 per head would be generated by the sale of the 495-pound feeder calf. Since no preconditioning costs were incurred, the net receipts would also be \$569.25 per head.

Next let's evaluate the preconditioned alternative for feeder calves sold after 45 days of preconditioning. This requires a little more effort to evaluate. As in the previous alternative, we assume we start with 75 head of feeder calves, an initial weight of 550 pounds per head, and precondition the feeder calves for 45 days (see detailed costs in Table 1). The feeder calves will receive a complete health program (initial and booster vaccinations, deworming, castration, dehorning, etc.) and a confined weaning program (separated from the brood cows and fed a ration in a bunk). This process involves weaning the feeder calves from the cows, sorting by sex, weight and quality, and bunk broke (eat & drink from a trough) for 45 days. Hence, these feeder calves are marketed 45 days after the non-preconditioned feeder calves.

Assume the preconditioning cost is \$1.83 per head per day. The total preconditioning cost would be about \$82.52 per head. Let's also assume the feeder calves realize an average daily gain of 2 ¼ pounds per head per day during the 45-day preconditioning period. The gross pay weight would be 651 pounds per head (550+45 x 2 1/4).

The shrink for the preconditioned feeder calves was estimated to be 5 percent (1 percent loading, 2 percent transporting shrink and 2 percent pencil shrink). The net pay weight is approximately 624-pounds per head. Assuming a sale price of \$110 per hundredweight for the 624-pound feeder calf, the total gross receipts were \$686.13 per head. The total gross receipts less

preconditioning costs results in net receipts for preconditioning feeder calves for 45 days was \$603.61 per head (\$686.13 - \$82.52).

A comparison of the net receipts for the two alternatives, precondition vs. non-preconditioned feeder calves, reveals that preconditioning feeder calves provides an additional \$34.30 per head of net income for the preconditioned calves (\$603.61-\$569.25). For the 75 head, this results in an additional net income of \$2,576.72 for preconditioning the feeder calves.

Is Preconditioning Feeder Calves for Me?

In order for preconditioning to be beneficial to the producer, the producer must:

- ∞ Identify and properly implement a preconditioning program for which buyers are willing to pay the seller.
- ∞ Fully describe the preconditioning program to potential buyers.
- ∞ Have adequate working facilities to perform preconditioning management practices.
- ∞ Have enough cattle to achieve truck load units.
- ∞ Be able to meet nutritional requirements and attain reasonable weight gain during the preconditioning period.
- ∞ Identify market channels that will reward the seller for the added value.

With today's high feeder calf prices, weaning and preconditioning feeder calves is beneficial to buyers and sellers, as well as the beef industry. Sellers benefit from selling more weight (due to less pounds of shrink and the weight gained during preconditioning). Buyers benefit from buying preconditioned calves because of a reduction in the amount of sickness, weight loss, and death loss associated with feeder cattle in feedlots. Managing this important transition period for the feeder calf (pasture to feedlot) adds more dollars to everybody's bottom line in the cattle industry.

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