

## Economics of Preconditioning Calves – *Outlook for Fall 2010*

October 9, 2010

Kevin Dhuyvetter, K-State Ag. Economics (785-532-3527; [kcd@ksu.edu](mailto:kcd@ksu.edu))

The practice of preconditioning calves after weaning has become more popular in recent years due to numerous trends that are occurring in the beef industry. However, as with any management practice, producers should evaluate whether or not preconditioning their calves is expected to increase returns relative to selling calves at weaning. This paper provides some example budgets examining the profitability of a 45-day preconditioning program based on prices in the fall of 2010. A more detailed paper on this topic written back in 2005 (*Economics of Preconditioning Calves*) can be found at <http://www.agmanager.info/livestock/budgets/production/beef/>. The information in this paper is for a “typical” preconditioning program (i.e., specific practices and products are not identified). If you are working with a specific company or program, the costs and returns should be analyzed with the specific requirements of that particular program.

Table 1 shows the estimated costs and returns for preconditioning a 575 pound beef steer calf for 45 days. The estimated price at weaning is \$113.10/cwt and based on a 4% shrink this generates a gross revenue of \$624 per head.<sup>1</sup> Thus, if preconditioning is to be profitable, relative to selling calves at weaning, gross returns after accounting for costs associated with preconditioning will have to exceed \$624/head.

The price received for calves after preconditioning will vary from the weaning price because of seasonal price moves, heavier calves, and other premiums/discounts associated with the calf being fed for 45 days. Based on the basis models for Salina, KS on [www.BeefBasis.com](http://www.BeefBasis.com), prices 45 days post weaning are expected to be \$2.69/cwt higher than prices at weaning (assumed at mid-October), all else equal. However, the heavier calf (638 lbs vs 552) is expected to be discounted \$5.73/cwt due to the higher weight. Thus, before any preconditioning premiums, the “buy-sell margin” is \$3.04/cwt (\$113.10 - \$110.06) for calves preconditioned for 45 days and gaining 2.0 lbs/day. Assuming a premium associated with preconditioning of \$5/cwt, the final price for preconditioned calves is projected to be \$116.06/cwt. Thus, after accounting for seasonality, heavier calves, and

---

<sup>1</sup> Steer selling prices were calculated using [www.BeefBasis.com](http://www.BeefBasis.com) on October 9, 2010 for Salina, KS (large and medium-large frame, grade 1-2, lot size of 50 head). Selling date for weaned calves was assumed to be October 20, 2010 and selling date for preconditioned calves was December 4, 2010 (i.e., 45 days later).

preconditioning premiums, the price of the heavier preconditioned calves is expected to be about \$2/cwt higher than the lighterweight calves at weaning time.

The costs for the 45-day preconditioning program are estimated to be approximately \$83/head (\$1.84/head/day). This value will likely vary considerably between producers based on feed ingredients available and the values placed on feedstuffs, labor, and facilities. Another factor that will significantly impact the cost per head is the number of calves preconditioned. Producers feeding more calves can typically spread fixed costs over more head thus reducing the cost per animal. Because of the many factors impacting costs, it is important for producers to estimate their own costs with values best reflecting their operations.

Given a cost of \$82.66/head, preconditioning for 45 days is expected to increase returns \$27.12/head compared to selling calves at weaning. The “Alternative scenarios” listed in Table 1 represent sensitivity analyses from the baseline scenario. All scenarios except “ADG (+)” represent poorer conditions relative to the baseline. This is not to infer that only downside risk exists, but rather to show how returns will be impacted if conditions worsen compared to the baseline. In all sensitivity analysis scenarios considered, returns to preconditioning remained positive. Even if costs increase approximately 25% compared to the baseline or if ADG is only 1.5 (as opposed to 2.0), returns to preconditioning are still projected to be over \$10/head better than selling calves at weaning. A scenario that likely would prove to be unprofitable is if calves have very poor performance (e.g., adg of 1.0-1.5 lbs) and have higher costs due to increased feed or additional treatment costs.

While returns to the cow-calf sector are not as good as they were in 2004 and 2005, current projections indicate that returns will be positive in 2010. Obviously, preconditioning calves does increase risk relative to selling calves at weaning where you have a live calf and a known price at that time, but current prices suggest that there is a return to this additional risk. That is, producers with the resources available should consider preconditioning their calves as there appears to be the potential to increase returns this fall relative to simply selling calves at weaning.

**Table 1. Economic Analysis of Cow-Calf Producer Preconditioning Calves – Fall of 2010**

A. Traditional Management Income	<u>Baseline</u>	Alternative Scenarios			
		<u>ADG (-)</u>	<u>ADG (+)</u>	<u>Cost (+)</u>	<u>D.L. (+)</u>
1 Weaning weight, lbs	575	575	575	575	575
2 Shrink, %	4.0%	4.0%	4.0%	4.0%	4.0%
3 Sale weight, lbs	552	552	552	552	552
4 Weaning price, \$/cwt	\$113.10	\$113.10	\$113.10	\$113.10	\$113.10
5 Gross revenue, \$/head	\$624.31	\$624.31	\$624.31	\$624.31	\$624.31
<b>B. Preconditioning Management Income</b>					
6 Beginning (weaning) weight, lbs	575	575	575	575	575
7 Days from weaning to marketing	45	45	45	45	45
8 ADG, lbs/day	2.00	1.50	2.50	2.00	2.00
9 Ending weight, lbs	665	643	688	665	665
10 Shrink, %	4.0%	4.0%	4.0%	4.0%	4.0%
11 Death loss	0.25%	0.25%	0.25%	0.25%	1.00%
12 Sale weight, lbs	638	617	660	638	638
13 Weaning price, \$/cwt	\$113.10	\$113.10	\$113.10	\$113.10	\$113.10
13a Price adjustment for seasonality, \$/cwt	2.69	2.69	2.69	2.69	2.69
13b Price adjustment for weight, \$/cwt	-5.73	-4.54	-6.84	-5.73	-5.73
13c Price adjustment for fleshiness, \$/cwt	0.00	0.00	-2.00	0.00	0.00
14 Time and weight adjusted price, \$/cwt	\$110.06	\$111.25	\$106.95	\$110.06	\$110.06
15 Preconditioning premium, \$/cwt	5.00	5.00	5.00	5.00	5.00
16 Final price (\$/cwt.)	\$115.06	\$116.25	\$111.95	\$115.06	\$115.06
17 Gross revenue (\$/head)	\$734.08	\$717.26	\$738.87	\$734.08	\$734.08
<b>C. Preconditioning costs, \$/head</b>					
18 Interest (cattle, feed, supplies) @ 7.0%	\$5.78	\$5.77	\$5.78	\$5.86	\$5.78
19 Health supplies and medicine	18.00	18.00	18.00	22.50	18.00
20 Death loss	1.79	1.75	1.80	1.78	7.15
21 Labor and equipment	15.75	15.75	15.75	15.75	15.75
22 Feed, hay, and pasture	38.34	37.41	38.10	47.93	38.34
23 Marketing costs (tags, comm, etc.)	3.00	3.00	3.00	3.00	3.00
24 Total cost	\$82.66	\$81.68	\$82.43	\$96.81	\$88.02
25 Cost per day	\$1.84	\$1.82	\$1.83	\$2.15	\$1.96
26 Cost of gain, \$/cwt	\$96.11	\$125.66	\$76.32	\$112.57	\$102.35
<b>D. Comparison: Traditional vs Preconditioning</b>					
27 Traditional gross revenue, \$/head	\$624.31	\$624.31	\$624.31	\$624.31	\$624.31
28 Preconditioning gross revenue, \$/head	\$734.08	\$717.26	\$738.87	\$734.08	\$734.08
29 Increased revenue, \$/head	\$109.77	\$92.95	\$114.56	\$109.77	\$109.77
30 Less preconditioning costs, \$/head	\$82.66	\$81.68	\$82.43	\$96.81	\$88.02
31 Net return from preconditioning, \$/head	\$27.12	\$11.27	\$32.13	\$12.96	\$21.75
32 Return on costs (line 29 / line 22)	32.8%	13.8%	39.0%	13.4%	24.7%
33 Breakeven price, \$/cwt	\$110.80	\$114.42	\$107.07	\$113.02	\$111.62
34 Breakeven premium, \$/cwt	\$0.74	\$3.17	\$0.12	\$2.96	\$1.56