



# Preconditioning: It Pays Off

*A win-win for cattle buyers and sellers.*

*by Melissa Leander*



Producers who follow an appropriate vaccination and weaning program with quality cattle don't have to worry about someone buying their calves. Research indicates that not only will buyers compete for preconditioned calves, but also pay a premium price to get them.

"Buyers have reduced risks, lower death losses, reduced medical costs and better gains; it's a value-added management practice," says Mike Peacock, beef feed sales and marketing manager for Southern States Cooperative in Virginia.

Weaning and transport are stressful on calves, and stress lowers an animal's resistance at a critical time when it is being exposed to more pathogens.

Calves that go through a preconditioning program go on to have less sickness and gain better in the feedlot, and also produce a more desirable retail product.

An increased profitability of \$50-60 per head at auction is a great incentive for producers to invest in a preconditioning program.

Still, it's important to plan, implement and evaluate a preconditioning program based on your market outlets, economics and management capabilities.

#### **Economic considerations**

Producers must estimate likely costs and the potential economic benefits of a preconditioning program. The potential gains

include any premium that buyers are willing to pay and the added weight calves will have after going through a program compared to selling at weaning. The costs associated with preconditioning calves include feed, handling, vaccination and death loss.

Many producers choose to have special production sales featuring preconditioned calves. It's important to market your program and its genetics, health history and nutrition to potential buyers.

#### **Calf health**

"Calves should be weaned at least 45 days before they're moved to market; 60 days is even better," says Peacock. During this time, they should receive two rounds of vaccinations to protect against viral and respiratory diseases they will encounter during transport. Producers can use any common 4-way vaccination program.

"Any commercially available program that incorporates a double vaccination for respiratory virals and clostridial diseases is good," says John Hall, Virginia Tech University beef Extension specialist. "In addition, calves should also receive a 7-way blackleg vaccine."

Another important aspect of calf health in a preconditioning program is deworming. "Deworming at the earliest possible date guarantees that weight gain is not limited," says David Lalman, Oklahoma State

University (OSU) beef Extension specialist. Weaned calves are very susceptible to internal parasites. A broad-spectrum endectocide is the best to use. Commercial dewormers such as Ivomec®, Dectomax® and Safeguard® are all appropriate.

Many preconditioning programs requiring certification at the sale barn include deworming as a health management practice.

#### **Available programs**

A few animal health companies such as Pfizer and Merial have developed programs for producers wanting to precondition their calves, and taken the guesswork out of vaccination and health programs.

These standard programs include Merial® Sure Health™ and Pfizer's Select VAC®. Merial's Sure Health program was designed to help optimize production and prevent disease. Merial offers certification for beef cattle, designed specifically for those in preconditioning programs. Pfizer's SelectVAC program has three protocols (PreVAC®, Wean VAC® and StockerVAC®) to improve health and performance of calves in preconditioning programs. SelectVAC also has a Web site that gives information about starting a preconditioning program and allows producers to enroll calves in the SelectVAC program.

#### **Nutrition**

The most important aspect of a preconditioning program is nutrition. Feed costs are undoubtedly one of the most

expensive parts of the program. Nutrition can make up 50-70% of the budget.

The best option is to utilize on-farm forage and feed sources if possible. If pastures can be managed to provide good quality forage to weaned calves, preconditioning on pasture becomes a viable option; however, forage alone can't provide sufficient weight gain.

"Calves need to gain at least 2 lb. per day to be profitable to both the producer and the buyer," says Peacock. "That can't be achieved by forage alone; there are two important aspects to feedstuffs in a preconditioning program: uniform nutrition in every bite and a highly palatable feed is a must."

Southern States recommends a basal ration for 16-21 days during the 45-day program followed by a change to forage and another feed ration to finish out the program.

"In Oklahoma, we encourage a minimum of 14 days of supplementation for the purpose of training calves to eat from a bunk, and we recommend a sound mineral supplementation program several weeks before weaning," says Lalman. "This is an additional firewall regarding the development of a strong and responsive immune system."

Another option is a mixed ration that was developed by Virginia Tech. "We recommend a ration that consists of soy hulls, corn gluten feed and wheat midds along with pasture for the 45-day program," says Hall.

#### **The bottom line**

Beef specialists agree performance of calves during

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preconditioning depends on feed resources and how calves respond to weaning. Don't cut corners on nutrition and health programs or calves may have problems once they leave the ranch. The more you can do before cattle get onto a truck, the better they will handle the stresses of transportation and resist disease, thus providing higher premiums at the sale barn.

“There is no lack of demand or premium for preconditioned calves; only a lack of supply,” says Lalman.

**Additional help**

See Table 1 to figure breakeven analysis for calves placed in a 45-day preconditioning program. For more information on software, decision tools are available through the OSU animal science Web site at [www.ansi.okstate.edu/exten/index.html](http://www.ansi.okstate.edu/exten/index.html). The software PRECON2001 estimates costs of preconditioning, as well as returns and breakeven scale prices for cattle to be sold. OSU also offers a software package (OSUNRCAF) that balances rations for growing calves. **HW**

**Table 1: Breakeven analysis for calves placed in a 45-day preconditioning program<sup>a</sup>**

Item	Cost/ price	Your estimate
<b>Cost of Program:</b>		
1. Weight going into program (lb./head)	550	
2. Price at beginning of the program (\$/cwt.)	\$125	
3. Current value/head (1 × 2)/100	\$688	
4. Interest rate assumed	9%	
5. Labor costs (\$/day/head)	\$0.22	
6. Cost of vaccinations (\$/head)	\$10.00	
7. Feed costs (\$/day/head)	\$1.15	
8. Yardage costs (\$/day/head)	\$0.20	
9. Interest per day on calf $4 \times 1/365 \times 3$	\$0.17	
10. Death loss (\$/head) $0.5\% \times [3 + (5 - 6 + 7 + 8)/2]$	\$3.42	
11. Average interest on other costs (\$/day/head) $4 \times 1/365 \times [5 + 7 + 8 + (6/12)]$	\$0.0004	
12. Number of days in program	45	
13. Average weight gain (lb./day/head)	2	
14. Cost per day in the program (\$/day/head) $5 + 7 + 8 + 9 + 11 + [(6 + 10)/12]$	\$2.04	
15. Total cost of program (\$/head) $12 \times 14$	\$91.71	
16. Cost of gain (\$/lb. of gain) $15/(12 \times 13)$	\$1.019	
<b>Breakeven Analysis:</b>		
17. Projected weight after preconditioning (lb./head) $1 + (12 \times 13)$	640	
18. Breakeven price for preconditioned calves (\$/cwt.) $(3 + 15)/17 \times 100$	\$121.75	
<b>Estimated price for 640 lb. calves:</b>		
19. Estimated price discount for each lb. gained beyond initial weight going into the program (\$/cwt.)	\$0.060	
20. Price discount anticipated for weight gain (\$/cwt.) $19 \times (17 - 1)$	\$5.40	
21. Estimated price for 640 lb. steers assuming no premiums for preconditioned calves <sup>b</sup> $2 - 20$	\$119.60	

<sup>a</sup> The values used in this table are for conditions in Utah during the fall of 2005. Numbers in the “Item” column correspond to specified calculations indicated throughout the table. Complete items 1, 2, 3, 4, 12 and 13 first to facilitate the other calculations.

<sup>b</sup> This is the estimated price for 640 lb. calves assuming that overall market prices did not change during the preconditioning program. If premiums are offered for preconditioned calves, the premium could be added to this price to obtain a new estimate.