

PRECONDITIONING  
DOES THE MONTH, SEX, WEIGHT AND LENGTH OF  
WEANING PERIOD MAKE A DIFFERENCE?

There are more and more beef producers preconditioning their calves to better prepare them for the marketing and transportation process, and to make them a better value to the buyer. Of course the incentive most have is the hope for some additional price over and above regular market run cattle. In addition, if the calves are age and source verified, with the Tennessee Agricultural Enhancement program the producer can earn \$15 per head if the calves are also sold in a preconditioned, Process Verified Program (PVP) sale. Due to fluctuating market prices and some less than fully successful marketing events, all producers do not feel they have had a profitable preconditioning experience.

Recent research into which times of the year are the most profitable for preconditioning calves has revealed information which can be very helpful to those currently preconditioning their calves or considering it. Mrs. Laura Cantwell Howard, UT Extension Area Farm Management Specialist, just updated the research conducted when she earned her Master's Degree in Agricultural Economics at UT. The earlier work looked at historical preconditioning returns from 1995 to 2004, while the new work takes the research through early 2009. She studied how several factors affected preconditioning returns. These were starting weight, 450 and 550 pounds; sex, steers and heifers; month of weaning; preconditioning time period, 45 and 60 days; and whether certain months of the year were more profitable than others. In considering month of the year, our buy-sell margin calculator was used to determine which months had the largest gross margin for 45 and 60-day preconditioning periods. Gross margin is the difference between the gross value if sold right off the cow and the gross value after preconditioning. For calves born in the spring, the weaning months of October, November and December had the

greatest gross margin. This was not surprising as calf prices are normally lowest in the late fall and higher early in the year. For calves born in the fall, the months of May, June and July had the largest gross margin, though a good bit smaller than for the spring born calves. The reason is that prices are usually declining from spring into the summer months.

A few assumptions were made in conducting the research. Calves preconditioned for 45 days were assumed to gain 1.75 pounds per day, while those preconditioned 60 days were assumed to gain 2 pounds per day. The preconditioned calves were assumed to shrink 2 percent less from farm to market compared to calves taken directly from the cow to a weekly auction. A 1 percent death loss was assumed for calves that were preconditioned compared to those sold right off the cow. Calves were fed a complete feed at 2 percent of body weight and the 2004 price of \$160 per ton was adjusted each year using the USDA index of prices paid for complete feed by farmers. For example, the 2008 feed price was \$250 per ton. Finally, the preconditioned calves were given a \$4 per hundredweight higher price assuming they were sold in a preconditioned sale.

The results of the research revealed that in all cases, the 60-day preconditioning period was more profitable than the 45-day period. This might be expected if the cost of gain is smaller than the value of that gain, the more weight the higher the return from feeding longer. Of all the alternatives considered for spring calving, the heifer calves weaned at 550 pounds in December and preconditioned for 60 days were profitable every year and had net returns over feed and vaccine costs over the 1995 to 2008 period of \$8.54 per head to \$97.44 per head, averaging \$50.48. Heifers weaned at 550 pounds in November and sold in January were profitable 93 percent of the years and averaged \$47 per head, while those weaned at 450 pounds in December and sold in February averaged \$44.54 per head. The next highest overall return alternative was

for steers weaned at 450 pounds in December and sold 60 days later. They had returns of \$6.91 to \$95.82 and averaged \$49.82 and were profitable every year. If those steers were weaned in November at 550 pounds for later sale in January, returns averaged \$37.84 and only lost money (\$4.75) one year. Steers weaned at 550 pounds in December and sold in February had average returns of \$26.40, but if weaned in November and sold in January returns dropped to \$22.30. Spring calves weaned in November and December and preconditioned for 60 days for sale in either January or February had higher average returns than those weaned in October and sold in December over the 14-year period. These results have implications for those considering preconditioning as well as current programs in place. The research does not imply that one should not wean earlier in the fall and precondition or background for a longer period. However, if the gain is profitable and one is moving from a historically low price period toward a marketing date when prices are higher, higher returns should be expected.

The returns from preconditioning for fall calves were lower in all cases based on the previous assumptions. However, calves weaned in June and marketed in August had higher returns over the 14-year period than those weaned in May or July. This research is not intended to look at the profitability of fall calving versus spring calving, just the preconditioning months and length of period. It does point out the need for cow-calf producers to consider the marketing window or target, much as vegetable producers do. The Grainger County tomato producers manage their production to hit the market when prices are high. The results should also be helpful to those planning sales of preconditioned calves. A key to marketing feeder cattle preconditioned or not is to have a load or have them be part of a load 48,000 to 50,000 pounds. Work with a marketing agent with that in mind. For a copy of this research go to the following web site [www.tnbeefcattleinitiative.org](http://www.tnbeefcattleinitiative.org) under "PRODUCTION" or contact this office at 1-800-

345-0561.

Emmit L. Rawls

Professor

Agricultural Economics