

Production and Economic Factors Associated With Backgrounding Beef Calves in East-Central North Dakota

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As beef producers enjoy the returns associated with the higher end of the beef cattle cycle, consideration should be given to methods by which the beneficial returns of raising beef cattle can be extended beyond the present cattle cycle. Many producers may be able to strengthen their cash flow and financial position by either becoming involved for the first time or by becoming more involved in the process of backgrounding beef cattle.

Data for this study was compiled through the Carrington Area Farm Business Management Program in conjunction with the North Dakota Farm Business Management Education Program. The farms and ranches from which the data was taken were located primarily in the counties of Eddy, Foster, Griggs, Kidder, Sheridan, Stutsman and Wells. Data was collected from 1991 through 2000 and included 14,714 calves from 160 lots of calves. All beef cow and replacement heifer enterprises were maintained as separate and distinct enterprises apart from the backgrounding enterprises.

The backgrounding enterprise data collected followed the normal production cycle, beginning when the calves were weaned or purchased and concluded when the calves were either sold or transferred out to finishing or replacement enterprises. The most typical time frame was from November of one year to approximately the end of March in the following year. While actual scale weights and sale or purchase weight slips were used whenever possible, some producers did estimate the weight of calves based on sales or purchases of herd mates or similar calves.

The study revealed that the backgrounding enterprises produced an average net profit of \$20.45 per cwt. or \$34.15 per head. The average production cost was \$40.17 per cwt. with \$29.79 of that amount being used for feeds including \$20.09 for concentrates, protein supplements, minerals and vitamins. The balance of \$9.70 was used for forages including grass hay, alfalfa, stover, straw and other forages. Veterinary costs and supplies averaged \$2.18 per cwt. while other direct costs totaled \$6.31 per cwt. Overhead costs were quite minimal at \$1.89 per cwt. of production. Since this study sought only the cost of production, the beginning value of the calf is not included in the listed expense figures. Only the additional weight gain, feeding expenses and increase in value are considered here.

The average daily gain of 1.84 pounds per calf was accomplished with a feed conversion rate of 10.45 pounds of feed per pound of gain, measured on an as fed basis. The feeds fed included an average of 5.08 pounds of concentrates and 5.37 pounds of forages per day. This 50-50 mix of concentrates and forages was quite stable over the 10-year period and usually did not vary more than 10% from the 50-50 ratio.

It should be noted that the cow herds from which the vast majority of the calves in the study originated, had an average net profit of \$9.74 per cwt. of production or just slightly less than one-half of the average profit per cwt. of production in the backgrounding enterprises. It should also be noted that the average annual return for backgrounding calves was positive in each of the 10 years involved in the study and varied from a low of \$3.38 per cwt. in 1996 to a high of \$42.82 per cwt. in 1997.

Major concerns that evolved from the study included feed conversion rates, rate of gain and marketing. Segregating calves based on sex and/or calf size can enhance feed conversion. Producers might also consider rations with higher levels of concentrates and lower levels of forages to enhance the daily rate of gain. Producers would also be encouraged to concentrate on their marketing skills to enhance the profit picture when backgrounding or feeding calves. The use of futures and options as well as cash forward contracting are examples of marketing tools that can be used to secure more certain price levels.

The feeding of healthy weaned calves is an enterprise that can be completed with a minimum amount of labor and in many instances can be contracted out to commercial feedlots. Backgrounding is also an enterprise that typically consumes less capital and overhead dollars and can be short term or continued on into a full beef-finishing project as the market dictates.