

Alternative Beef Production Systems: Options for 1999

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Beef producers have several alternatives to examine that may add value to their 1999 calf crop. Retained ownership of calves is a popular discussion topic among producers. The key question is, is this the year to retain ownership or sell as feeder calves. The beef cycle appears ready to increase cattle inventories and prices are strong, especially for feeder cattle.

Using market price projections, risk management tools and enterprise budgets, producers can examine marketing alternatives for their 1999 calf crop. Stocker operators can consider the type of cattle to buy and how long to keep them before selling or putting into the feedlot. Effective marketing requires that producers divide their beef business into profit centers and treat each profit center as a stand-alone business. In today's competitive industry, producers can not afford to subsidize any loss-generating profit centers.

Producers should ask themselves if they make their profits running the cow herd (pre-weaning) or feeding their calves to heavier weights (post-weaning). This is critical information for it helps producers evaluate their production system alternatives. The discussion and summary table at the end outlines seven (7) alternative production systems cow/calf producers should consider before marketing their calves this fall.

The demonstration cow herd of 100 spring calving cows is described in the first budget column expressed as a one (1) cow herd. A 95% calf crop is dropped with a 4% calf death loss leaving 92 calves to sell in the fall. The steer calves are weaned and sold at 500 pounds and heifers at 450 pounds. Cows are culled at 10 years of age (12.5% cull rate) weighing 1,100 pounds and 1% die annually. The three bulls average 2,200 pounds and are used for three years each so a new bull is purchased annually.

Using price estimates of \$92.00 / cwt. for steer calves, \$84.00 / cwt. for heifers, \$38.00 / cwt. for cull cows and \$45.00 / cwt. for bulls, estimated receipts total \$39,061.00. An \$8.00 / cwt. price spread between steer and heifer calves is average. As supplies of feeder cattle tighten, this price spread is expected to decrease with heifers selling closer to steer prices. Over the next two to three years, this spread may diminish to \$1.00 to 2.00 / cwt.

Variable expenses are those expenses incurred because you own the cattle. Purchased cattle, feed cost and livestock cost are included. Purchase of cattle is limited to one bull costing \$1,500 and costing \$75 to get him home for a total cost of purchased cattle of \$1,575.00. Feed costs total \$25,761.75 with pasture priced at \$55.00 / acre for 225 acres and 245 ton of hay priced at \$55.00 / ton. Livestock costs include death losses, heifer bedding, veterinary, medicine, vaccines, supplies, power, fuel, utilities, and marketing costs for the calves, cull cows and bull. Livestock costs total \$7,170.55. Total variable costs are \$34,507.30.

Fixed costs are those expenses occurred whether you have cattle or not. Depreciation, insurance, taxes, repairs and interest are fixed costs. The budget includes only those annual expenses of insurance, taxes and repairs. They total \$3,054.00.

Returns to labor, management and capital are estimated to be \$4,553.70 with returns to labor and management of \$1,499.70. On a per cow basis, returns are \$45.54 per cow. The weighted breakeven cost / cwt. of calf sold is \$76.73. Each cow sells an equivalent of 373.5 pounds of calf. A 100 cow herd represents about 25% to 30% of a full-time job.

The seven alternative production systems use the same budget format. Each budget represents the estimated cost of going from the starting weight to the ending weight including marketing costs for the end weight. The returns to labor, management and capital are on a per head basis. The estimated breakeven cost / cwt. gives an estimate of the level of risk since it represents the price / cwt. necessary to breakeven financially using the amounts and prices listed. If the cattle are kept to go to the next heavier weight, they do not incur a marketing cost and are thus valued at the retention value for feed or grass / cwt. price in the next option. This means that profits or losses are accumulated until the cattle are sold. Thus losses may be incurred in one option but if the cattle are kept to a heavier weight, profits may result.

The first option is for light calves purchased or retained ownership being fed through the winter to gain 225 pounds over 180 days at 1.25 pounds average daily gain. The target market is to sell as light yearling feeders (625 pounds) onto grass the following spring. The 400 pound feeders cost \$373 / head and the 625 pound light yearling feeders sell for \$550 / head. Feed costs total \$85.72 or \$32.10 / cwt. Returns to labor, management and capital are estimated at a loss of \$3.96 / head. If fixed costs are paid, the loss is \$23.69 / head. The expensive winter feed cost plus the negative buy/sell price spread of \$4.00 / cwt. does not make this an attractive option this fall.

The second option is to put the 625 pound steers on grass next spring for 180 days gaining 1.8 pounds per day for additional weight gains of 275 pounds. The expected market is to sell heavy yearling feeders at 900 pounds in the fall to the feedlot. The 625 pound feeders cost \$503.94 / head going onto grass. The heavy yearling feeders sell for \$702.00 / head. Summer feed costs on grass cost \$97.95 or \$35.62 / cwt. Returns to labor, management and capital are now \$31.44 / head. If fixed costs are paid, returns are now \$24.28 / head instead of a \$3.98 loss as light yearlings. The economical summer gains covered the winter losses and turned a profit due to longer ownership and more weight being added to the steers. Total ownership time accumulates to 360 days or 12 months. A long time for only \$31.44 / head.

The third option is to retain ownership of the heavy yearlings into the feedlot. A short feeding period of 114 days at gains of 3.3 pounds per day average daily gain markets a 1,250 pound fed steer. The heavy yearling feeder costs \$623.16 going into the feedlot and sells for \$862.50 / head. The feed cost is \$114.51 / head or \$32.72 / cwt. The returns to labor, management and capital now total \$62.99 / head. The breakeven price for fed cattle is \$63.96 / cwt. which can be hedged successfully on current markets. The combination of winter stocker, grass yearling and heavy feeder in the feedlot markets considerable forage, grass, corn, facilities, and labor. Total ownership is 474 days or nearly 16 months. This is a long time for \$63 / head but an option for those producers who have labor, forage, grain and calves to sell.

The fourth option is to put the 625 pound light yearling directly into the feedlot next spring. A 200 day feeding period requires an average daily gain of 3.1 pounds to gain 625 pounds. The expected market is the winter fed cattle market in January. The 625 pound feeder costs \$503.94 / head going into the feedlot. The fed steer sells for \$862.50 for returns to labor, management and capital of \$101.69 / head. Feed costs are \$179.57 / head or \$28.72 / cwt. The breakeven cost is \$60.86 / cwt. which can be successfully hedged on current futures markets. Returns reflect the economical gain due to cheap corn and the shorter time of ownership, being 380 days or about 13 months. This is the most attractive profit option of the seven but requires facilities, management, labor and market knowledge.

The next three options are for heavy weaning calves averaging 500 pounds at weaning. The fifth option is to winter the 500 pound calves at 1.4 pounds per day for 180 days to produce a 750 pound steer the following spring for either grass or the feedlot. The 500 pound feeder costs \$458.00 / head and puts on 250 pounds of gain. The 750 pound feeder sells for \$600 / head of \$80.00 / cwt. Feed cost is \$124.88 / head or \$49.95 / cwt., not real economical. The returns to labor, management and capital is a loss of \$78.07 / head reflecting both the negative buy/sell price spread of \$10 / cwt. and limited weight gain of 250 pounds. The fixed costs make the loss worse at \$97.79 / head.

The sixth option is to put 750 pound steers in the feedlot. Expected daily gains of 3.1 pounds over 165 days will put on 500 pounds of gain for a final weight of 1,250 pounds. The 750 feeder costs \$629.85 / head or \$83.98 / cwt. Feed costs are \$149.14 / head or \$29.83 / cwt. The finished steer costs \$850 generating returns to labor, management and capital of only \$6.17 / head. Fixed costs of \$18.08 turn returns to a loss of \$11.91 / head. The negative buy/sell price spread of \$15.98 / cwt. off sets the economical gains in the feedlot. Time of ownership totals 345 days or close to a year. Growing heavy calves over the winter does not appear to be a profitable option under these price expectations.

The seventh and last option is to put the 500 pound steers directly into the feedlot on a high grain finishing ration. Placing calves directly on a finishing ration will mean they will be finished at a lighter weight, about 50 pounds lighter. The final weight of 1,200 pounds will be reached at 250 days on feed with gains of 2.8 pounds per day. The steer will cost \$458 on feed and will sell around \$804.00 / head. Feed cost should be \$206.46 / head or \$29.49 / cwt. Returns to labor, management and capital are estimated at \$46.00 / head. Fixed costs of \$27.40 / head reduce returns to \$18.61 / head. Ownership time totals 8.5 months. This is a popular baby beef feeding production system common to the cornbelt in past years.

Using returns to labor, management and capital as the criteria for deciding on which options to consider, the backgrounding options are not very profitable. Only when light calves are wintered at slow gains followed by immediate feedlot placement, does backgrounding appear attractive profit wise. Here in lies the problem of backgrounding calves in the northern plains and northern states. Backgrounding is a relatively high-cost production system with keen competition from southern states with cheap grass.

The summary table outlines the demonstration cow herd in the first column followed by the seven alternatives. Price projections suggest that profit potential for 1999 calves will go mostly to pre-weaning profits allocated to the cow-calf producer. Beef cow-calf producers may want to consider selling their calves this fall, especially if prices are over \$90 / cwt. and calves are over 500 pounds. They can take the money to the bank, pay off some loans, and relax this winter.

Backgrounders will have to buy feeder cattle carefully and manage cattle well to generate profits. Aggressive feeder prices will make profits hard to come by even with cheap feed.

Competition for the reduced number of feeder cattle by today's expanded feedlot sector may limit profit potential for backgrounding and retained ownership for the next few years. Profits are back for the cow-calf producer and it is his turn to enjoy owning cows and selling calves profitably.