

Economics of Backgrounding Cattle

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Lesson 6

Introduction

Factors affecting feedlot or backgrounding lot profitability should be classified as those connected with the economic (beyond control by the producer) or management (controlled by the producer) environments. Economic factors include purchase and sale prices, feed prices (usually a function of corn prices), and interest rate. Management factors are those that affect average daily gain (ADG) and feed efficiency (lb feed per lb gain, FTG; lower values reflect greater efficiency). These factors are largely dependent on genetics, nutritional background of the cattle, nutritional management (e.g., feeds used, mixing and delivery method), weather and health. A detailed evaluation of the effects of each factor on performance is beyond the scope of this paper. However, because backgrounding is a relatively short-term investment, small changes in some of these factors have a great impact on profitability. Therefore, producers must always strive to integrate economic and management factors to make decisions that will enhance the profit potential of a cattle backgrounding lot. For producers to manage the backgrounding operation, they need to spend time recording information on costs of production (close-out information) so that they can manage their operations more efficiently and with an eye on profitability.

Gathering Close-out Information

Purchasing and Selling Price and Weights. Purchasing and selling price are primary determinants of profitability and must be recorded with the lot of cattle to be backgrounded. Recording weights at the sale barn scale would provide what is typically called “pay-weight”, while recording weights on arrival is typically called “in-weight”. The difference between these two weights is a measurement of shrink or weight reduction on transit. Depending on transit time, previous diet, and health, weight shrink can vary from 1% on a short haul (20 mi) to as much as 8.5% for a 1400-mi haul, but average shrink values of 3% to 5% are common. This would indicate that on arrival, the producer has already “lost” from \$15 to \$25/head on a 500-lb steer purchased at \$1/lb; although this loss is recovered rapidly. When evaluating the overall economic efficiency of the operation, pay-weight to pay-weight performance is utilized; otherwise, in-weight to out-weight (weight of cattle before trucking off the yard) is used to evaluate the

biological performance of the lot. In most cases, cow-calf producers may not have access to a scale on their yards to record in-weight or out-weight; therefore, they must rely on pay-weight to evaluate performance and economic efficiency.

Backgrounding Expenses. In most feedlots today, feeding is accomplished by the use of a truck-mounted mixed wagon with scales. This facilitates recording load weights for proper ingredient loading, and unloading weights to keep track of pen feed deliveries. Weighing feed deliveries by whatever means is extremely important and necessary to determine investment in feed made by the backgrounding lot as feed cost accounts for more than 60% of total costs. Along with this information, it is also important to record prices of feed commodities such as corn, barley, hay, stalks, etc. and mixed feeds (mineral and protein premixes, feed mixes, etc.). Armed with feed cost and feed use data, and pay-weight records, producers would have sufficient information to formulate a crude close-out report to determine whether their investments in a backgrounding lot are worth their efforts (an example of the information gathered by the MN Farm Business Management Association for backgrounding lots is presented in Table 1).

Table 1. Minnesota backgrounding costs in 2004 (average per head) ^a

Number of farms evaluated	20	
Direct Expenses		
	Units	Dollars/head
Corn, bu	6.77	\$14.97
Corn silage, lb	1,387.13	\$13.96
Hay, alfalfa, lb	246.71	\$5.05
Hay, grass and other, lb	524.26	\$13.62
Oats, bu	2.59	\$3.64
Pasture, animal-unit-month	0.08	\$1.42
Stover, lb	74.46	\$0.54
Complete ration, lb	208.19	\$9.73
Creep/starter, lb	15.14	\$1.36
Protein, vitamin and minerals, lb	159.54	\$12.86
Dry corn distillers grains, lb	15.76	\$0.64
Other feed stuffs, lb	0.10	\$1.23
Veterinary		\$8.40
Supplies		\$3.93
Contract production expenses		\$0.50
Fuel and oil		\$4.22
Repairs		\$4.13
Hauling and trucking		\$2.11
Marketing		\$11.70
Operating interest		\$2.64
Total direct expenses		\$116.64
Overhead Expenses		
Hired labor		\$0.62
Machinery and building leases		\$0.35

Farm insurance	\$2.06
Utilities	\$1.73
Interest	\$3.52
Machinery and building depreciation	\$4.35
Miscellaneous	\$1.66
Total overhead expenses	\$14.28
Total direct and overhead expenses	\$130.93
Labor and management charge	\$15.22
Cost of Production	
Total expenses	\$146.15
Feed expenses	\$79.01
Non-feed expenses	\$67.14
Veterinary, marketing and trucking	\$22.21
Feed cost, \$/cwt	\$0.26
Yardage, cost/head/day	\$0.30

^a Minnesota State Colleges and Universities Statewide Farm Business Management Database
<http://www.mgt.org/fbm/reports/2004/State/beef%20backgrounding%20head.htm>

Cost information is divided as direct expenses or those directly resulting from the process of backgrounding cattle, and overhead expenses or those resulting from investments in machinery, equipment and utilities, insurance, and interest on land, equipment or machinery investments. Expenses are typically separated as feed and non-feed expenses. Within non-feed expenses, veterinary, marketing (commission, check-off, etc.) and trucking costs are presented on a per-head basis. In Table 1, these expenses added up to \$22.21/head leaving a total of \$44.93/head non-feed, non-veterinary or marketing expenses. If non-feed, non-veterinary or marketing expenses, as they are related to costs of staying in the lot (fuel and oil, repairs, operating interest, and supplies), are lumped together and are divided by the number of days on feed, they represent what is considered in feedlots as yardage cost. In Table 1, yardage costs are \$0.30/head/day.

Feed expenses are determined directly from feed deliveries and feed cost. Feed expenses totaled \$79.01/head in Table 1 and, when divided by the gain achieved, resulted in a feed cost of gain of \$0.26/lb. Total cost of gain in Table 1 (\$146.15) can also be divided by the gain achieved to determine total cost of gain per pound (\$0.49/lb).

Dividing expenses in these various categories permits quick calculations of costs as affected by three important relationships between performance and economics in the backgrounding lot: ADG (lb/day)—associated with yardage costs; feed cost and FTG (lb feed/lb gain)—associated with feed cost of gain; and veterinary or marketing costs (\$/head)—associated with health or distance to sales centers. Separating expenses into these categories also permits

comparisons with other producers' data and projections required to estimate breakeven costs.

Breakeven Price Projections. Cost information is vital for determination of backgrounding lot profitability, but also for projecting the outcomes of backgrounding future lots. Two types of breakeven price projections can be calculated; one to determine how much to pay for cattle to purchase for the backgrounding lot (purchase breakeven price), and the other one to determine how much to sell cattle for at the end of the backgrounding period (sale breakeven price).

Breakeven purchase price projection is determined easily by adding total costs of production in the backgrounding lot, and subtracting projected gross return (projected sale price times the sale weight). This value is then divided by the projected purchase weight. Using information from Table 1, and projected price and weight of \$0.85/lb and 750 lb (\$637.50/head), respectively, the formula for breakeven purchase price and respective solution are:

$$\text{Breakeven purchase price, \$/lb} = \frac{\text{Gross return/head (\$)} - \text{Backgrounding expenses/head (\$)}}{\text{Purchase pay-weight, lb}}$$

For the average Minnesota backgrounding lot example (Table 1), breakeven purchase price is:

$$\text{Breakeven purchase price, \$/lb} = \frac{\$637.50 - \$146.15}{500 \text{ lb}} = \$0.9827/\text{lb}$$

Once this information is available, producers can generate breakeven purchase prices for various costs of production resulting, for instance, from various grain costs and various pay-weights. An example of this table is provided (Table 2).

Table 2. Breakeven purchase prices for various costs of gain and sale prices

Sale price, \$/lb	Cost of gain, \$/lb gain					
	\$0.35	\$0.40	\$0.45	\$0.50	\$0.55	\$0.60
\$0.70	\$0.88	\$0.85	\$0.83	\$0.80	\$0.78	\$0.75
\$0.75	\$0.95	\$0.93	\$0.90	\$0.88	\$0.85	\$0.83
\$0.80	\$1.03	\$1.00	\$0.98	\$0.95	\$0.93	\$0.90
\$0.85	\$1.10	\$1.08	\$1.05	\$1.03	\$1.00	\$0.98
\$0.90	\$1.18	\$1.15	\$1.13	\$1.10	\$1.08	\$1.05
\$0.95	\$1.25	\$1.23	\$1.20	\$1.18	\$1.15	\$1.13
\$1.00	\$1.33	\$1.30	\$1.28	\$1.25	\$1.23	\$1.20
\$1.05	\$1.40	\$1.38	\$1.35	\$1.33	\$1.30	\$1.28

Breakeven sale price projection is also determined easily by adding total costs of production in the backgrounding lot to purchase cost (\$/head). This value is then divided by the projected sale weight. Using information from Table 1, and projected purchase price and weight of \$1.00/lb and 500 lb (\$500.00/head), the formula for breakeven sale price and respective solution are:

$$\text{Breakeven sale price, \$/lb} = \frac{\text{Purchase cost/head (\$)} + \text{Backgrounding expenses/head (\$)}}{\text{Sale pay-weight, lb}}$$

For the average Minnesota backgrounding lot example (Table 1), breakeven sale price is:

$$\text{Breakeven sale price, \$/lb} = \frac{\$500.00 + \$146.15}{750 \text{ lb}} = \$.8615/\text{lb}$$

Backgrounding Lot Profitability — The Basics

A producer who chooses to background cattle is actually performing two functions in the process of taking cattle from a given weaning or lightweight to a heavy or yearling weight endpoint including: 1) purchasing feeder cattle, and 2) marketing backgrounded cattle, a commodity to which he/she has added some value (gain). When viewed separately, these functions demonstrate the complexity of a backgrounding operation, and they simplify integration of economic and management factors into the profit equation.

Producers purchase lightweight cattle at a given price. These pounds, along with additional pounds gained in the backgrounding lot, are later marketed as heavyweight or yearling feeder pounds. Producers in the U.S. usually purchase feeder pounds at higher prices than they market heavy or yearling feeder pounds. A 500-lb steer calf is sold at \$65 to \$100/cwt, while a 750-lb feeder steer is sold at \$60 to \$75/cwt. The difference between purchase price and sale price is called price spread or price margin. Feed, non-feed [death rate, transportation, shrinkage, medicine and veterinary costs, interest and yardage (fuel, overhead, custom hire, labor, etc.)] and indirect costs are calculated over the entire feeding period and spread over the entire gain (in pounds). These costs are then expressed as dollars per hundredweight (\$/cwt) gain and considered cost of gain. The difference between sale price and cost of gain is known as feeding margin.

Price Margin. The difference between purchase and sale price applied to purchase weight. For example, a producer purchases one hundred 500-lb yearlings for \$100/cwt delivered. After a feeding period of 90 days, the producer sells 99 750-lb cattle for \$85/cwt net. The price margin for the 750-lb feeders is a negative \$15/cwt. In other words, the initial 500 lb that the producer purchased at

\$100/cwt are valued at only \$85/cwt when the cattle are backgrounded. The producer already has a loss of \$75/head to offset (500 lbs x \$.15/lb).

Feeding Margin. The difference between the cost of producing one pound of gain and the selling price. Adding to the previous example, the cost of gain is calculated at \$40/cwt (this includes all costs from the time of purchase to the time of sale — transportation, shrinkage, veterinary and medicine, death loss, feed, interest and yardage). The feeder, in the example, feeds for 250 lb gain, valued at \$85/cwt at sale time. Therefore, the feeding margin is \$45/cwt (\$85/cwt sale price - \$40/cwt cost of gain). The feeding margin calculated on a per head basis is \$112.50 (250 lbs x \$.45/lb).

Profit or Loss Calculation. Adding or subtracting price margin and feeding margin on a per head basis permits calculation of profit or loss. In the example, a negative price margin of \$75/head must be subtracted from a positive feeding margin of \$112.50/head. The result (\$37.50/head) is the net profit made by the producer.

The advantage of separating these functions into a margin for each permits in-depth analyses of factors that affect profitability. In addition, this allows a separation of the operator's expertise in purchasing and marketing cattle from cattle feeding and management.

Factors Affecting Profit in the Backgrounding Lot.

A series of scenarios was modeled to determine the impact of several economic or management factors on feedlot profit (DiCostanzo et al., 1996; <http://www.extension.umn.edu/Beef/components/publications/bcmu37.pdf>). Of the economic factors, sale price had the largest impact on profit followed by purchase price, feed cost and interest rate. These observations underline the importance of a marketing plan, and a plan to obtain a consistent supply of fair priced feeders.

Between the management factors evaluated, FTG or ADG, FTG had the greatest impact on profit. Because feed costs usually total 60 to 70% of the total cost of gain, feed costs or FTG ranked third in affecting feedlot profitability. The impact of feed cost or FTG was similar for cattle of various weights. Therefore, developing sound feeding programs that maximize gain for a given intake at low costs are the desired strategies to improve profits.

Average daily gain or interest rate affects the total non-feed costs (usually between 30% and 40% of the total cost of gain). Therefore, the relative impact of ADG or interest rate on profit is small. Indeed, because heavy feeders are fed

for shorter periods of time, the relative impact of ADG or interest rate is lower on profit in heavy steers.

Models tested by DiCostanzo et al. (1996) demonstrated the importance of economic and management factors in feedlot profitability. These models also demonstrated the importance of integrating two functions in operating a feedlot — marketing and feed management. Some associations between factors studied and profit were derived:

- A change of \$1/cwt purchase price affects profit \$7.14/head
- A change of \$1/cwt sale price affects profit \$12.90/head
- A change of \$1/cwt feed cost affects profit \$50/head
(Or, a change of \$1/ton feed cost affects profit \$2.50/head.)
- A change in interest rate of 1 percentage point affects profit \$2.50/head
- A change of 1 lb of FTG affects profit \$37.30/head
- A change of 1 lb of ADG affects profit \$17.20/head

Thus, when purchase price is expected to increase \$5/cwt, profit is expected to decrease \$35.70/head. Also, when sale price increases \$5/cwt, profit is expected to increase \$64.50/head.

These factors are additive. This means that a producer facing a year of increased feeder prices (\$5/cwt) and potentially low backgrounded cattle prices (\$3/cwt) must work with his/her nutritionist to reduce feed cost, improve FTG or ADG to offset the combined negative effect of increased purchase price and decreased sale price (\$74.40/head). With the use of alternative feeds, implementation of bunk management strategies and use of approved growth promotants, he/she may expect to lower feed cost \$20/ton (a \$50/head improvement in profit), improve FTG by .5 lb (an \$18.65/head improvement in profit), and increase ADG by .5 lb (an \$8.60/head improvement in profit). The cumulative improvements in profit add up to \$77.25/head, sufficient to offset the negative impact (\$74.40/head) of purchase and sale price on profit.

Approximate equivalent values of profit determinants are:

- \$3.50/cwt purchase price = \$2.00/cwt sale price
- \$2.00/cwt sale price = \$.50/cwt feed cost (\$10/ton feed cost)
- \$.50/cwt feed cost (\$10/ton feed cost) = 10 points interest rate
- 10 points interest rate = .7 lb FTG
- .7 lb FTG = 1.5 lb ADG

Thus, a producer can offset changes in any of these factors by adjusting the other(s). For instance, increases in purchase price of \$3.50/cwt would be offset by increasing sale price \$2.00/cwt or decreasing feed cost \$10.00/ton. Similarly,

when manipulating diet ingredients to reduce feed cost, one often wonders what loss in feed efficiency can be afforded. Approximate equivalent values indicate that, when all other factors remain constant, reducing feed cost \$10/ton (e.g., by using alternative feeds) will permit a .7 lb lower feed efficiency if necessary.

Factors Affecting Cattle Prices

As described previously, external factors to managing cattle in a backgrounding or feedlot operation have a greater impact on profit than technical/managerial factors. This means that producers must manage cattle in their operations so that gain and efficiency are maximized; however, they also must learn to understand market signals related to cattle prices. Factors that affect cattle prices are those indicators of supply (beef cow inventories, carcass weights, feedlot marketing totals, imported beef and live cattle totals, and beef production) and demand (beef disappearance, beef consumption, and beef exports), external factors such as price of feed (corn and soybean meal) and effects of weather on crops in the US and other countries leading in grain production.

Factors indicative of increased beef supply have negative impacts on price. Both beef cow inventories and beef production reflect beef supply (Figure 1). However, because the beef industry has a long generation interval, beef production lags behind beef cow inventory, and peaks reflected by beef cow inventories occur about two to three years ahead of peak beef production. Additionally, other factors modulate beef production irrespective of cow inventories such as carcass weights, and placement rates of both steers and heifers.

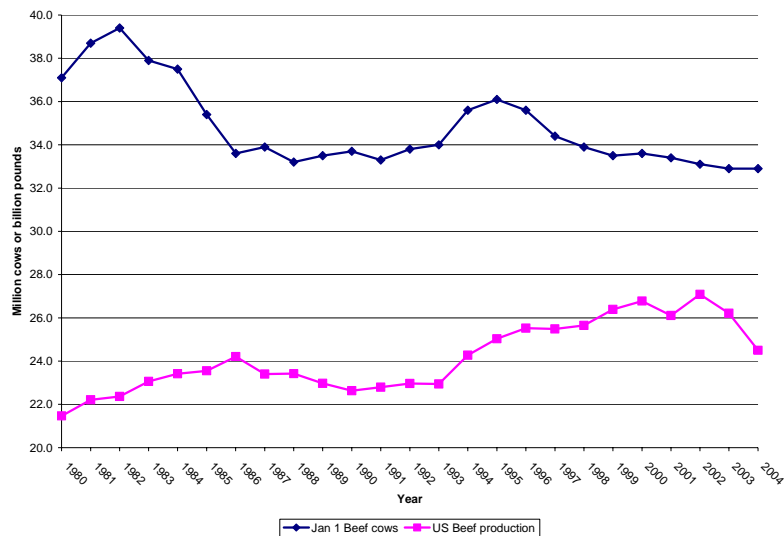


Figure 1. January 1 beef cow inventory (millions) and beef production (billions) from 1980 to 2004.

Steer prices (Figure 2) reflect both beef supply and demand (Figure 3). In 1980, beef demand was relatively high (Figure 3), beef production was low (Figure 1), and,

relative to other years in the early 1980s, price was high (Figure 2). Toward the end of the 1980s, steer price was highest (\$73.94/cwt), likely because of short beef supply (23 billion pounds), although beef consumption was declining (please compare Figures 1, 2 and 3).

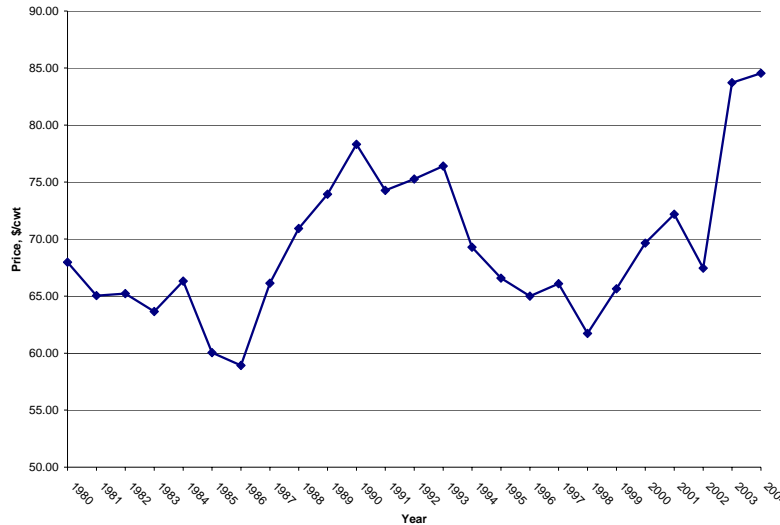


Figure 2. Average fed steer price from 1980 to 2004.

Between the years 1990 and 1993, prices for fed steers were highest during that decade (Figure 2); prices reflected the lowest supplies in the 1990s. As beef supply increased from mid-to late 1990s (Figure 1) because of increased profitability, steer prices decreased (Figure 2), especially because beef demand continued declining (Figure 3) during this time.

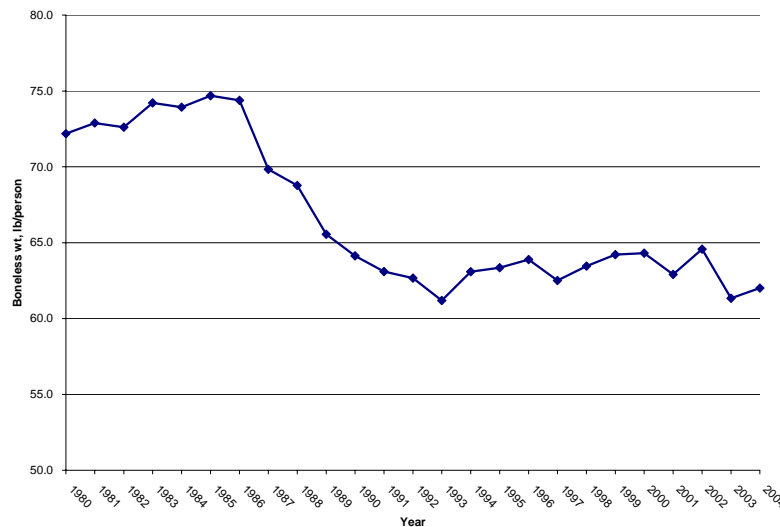


Figure 3. Boneless beef consumption (disappearance, lb/person) from 1980 to 2004.

From 1995 to 1997, increased beef supply further reduced steer prices. Additionally, during 1995 to 1997, corn prices increased because of weather-related phenomena. However, in spite of this, beef production did not decrease, as expected in the late 1990s, because beef demand improved to the point which it clearly supported higher prices. Early in the 2000s, improved demand has helped to sustain higher cattle prices in spite of increased beef production. The decrease in beef production observed in 2003 and 2004 is owed less to the impact of the Canadian border closure and more to increased prices which led to feedlots shipping cattle at lighter carcass weights (758 lb in 2002, 740 lb in 2003, and 740 lb in 2004). A difference of 20 lb in carcass weight represents a difference of 2.6% in beef production or 700 million pounds.

When reviewing the cyclic trends in cattle prices (Figure 1) during the 80s and 90s, one could easily see that the high in cattle prices occurs towards the end of each decade, with a peak year around the beginning (or end) of the decade (1980 or 1990). Up to the late 1990s and, including the year 2000, this was true for the current decade; however, changes brought about mainly by increased beef demand have led to an extended high in this current price cycle, up to 2004. Projections for beef production and net beef supplies (includes imports and exports) are up; thus, in spite of continued projected high demand for beef, steer prices are expected to begin their decline in 2005 for the decade of the 2000s (Cattle-Fax, 2004; <http://www.cattle-fax.com/members/special/files/ltodec2004.pdf>); a delay of four years was caused by the rebound in beef demand.

As indicated, it is important to understand these relationships when evaluating the potential for profit in a backgrounding operation. This is of particular interest for cow-calf producers that make the determination to retain calves for backgrounding on a yearly basis. For these producers, recognizing the slide in price or price margin between weaned calves at weaning either in November or May, for spring- or fall-calving herds, respectively, and those that have been backgrounded for sale in February (Figure 4) or September (Figure 5), for spring- or fall-calving herds, respectively, is absolutely necessary.

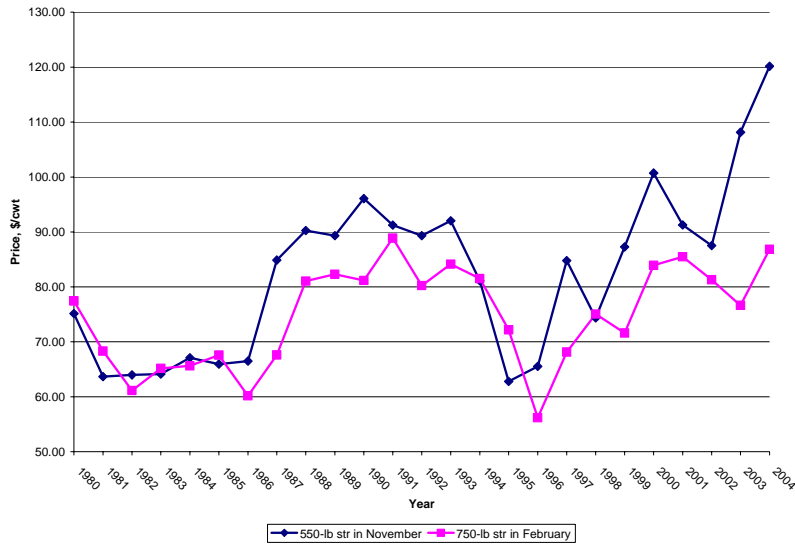


Figure 4. Prices for 550-lb steers in November and 750-lb steers in February from 1980 to 2004.

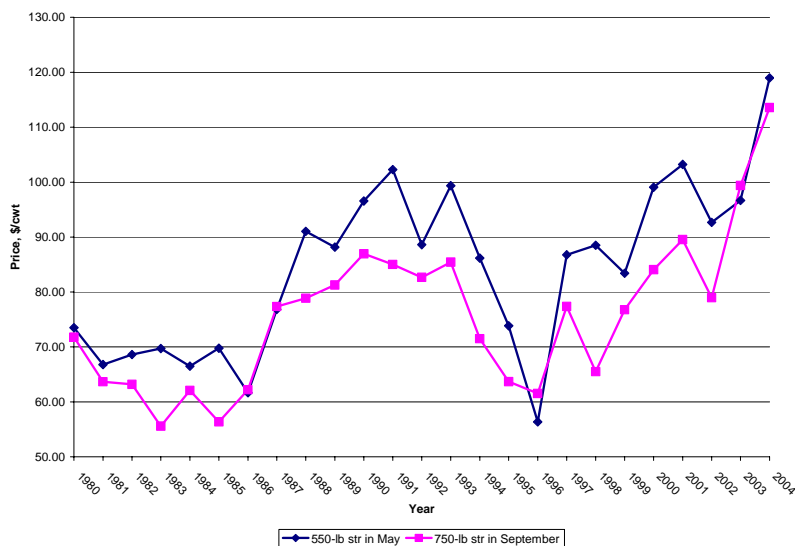


Figure 5. Prices for 550-lb steers in May and 750-lb steers in September from 1980 to 2004.

In Figures 4 and 5, the difference in price between the lines for 550-lb and 750-lb steers represents the price margin for producers who background 550-lb steers until they weigh 750 lb. During the early 1980s, the price margin was either low or positive between November and February, but not between May and September. During these years, fed steer prices were (Figure 2) relatively high. From the mid-1980s to the mid-1990s, price margins were negative regardless of backgrounding dates, at the same time fed steer prices were actually relatively high. When fed steer prices declined in 1994 to 1998, price margins were narrow. Price margins began to widen as fed steer prices improved in the late 1990s and early 2000s. In the last two years, steers sold at a negative margin (relative to a 550-lb steer in November) at 750-lb in February, but not those sold

at 750-lb in September (relative to a 550-lb steer in May). This observation is partially explained by the euphoria created by the discovery of BSE in Canada in May 2003 and in the USA in December 2003. In the fall of 2003 and 2004, yearling steers were marketed at a premium because of the anticipation of increased prices created by the border closure with Canada in 2003, and the support of feedlot profits in early 2004.

Statistical analyses of the complex interactions between price margin and beef production, fed steer prices, beginning-month feedlot inventories, beginning-year cow inventories and corn price were conducted to provide some direction for producers to observe specific trends in these factors in order to make the determination of whether to background or not. Price margin between 550-lb steers in November and 750-lb steers in February was poorly predicted by any of these factors (the prediction equation accounted for only 40% of the variation in price margin). Increasing numbers of beef cows in the national herd had a negative impact on price margin (550-lb steer prices were higher in November than 750-lb steer prices in February) while higher corn prices justified purchasing heavy cattle the following February at a price closer to the price at which 550-lb steers were marketed in November (corn prices led to positive price margins).

Cow-calf producers who wish to retain ownership of spring calves for backgrounding until February must watch January 1 beef cow inventory of the weaning year, and corn prices during the weaning month to make a determination whether to retain or not. Opportunities for preventing negative price margins exist when the January 1 beef cow inventory is decreasing. When corn prices are high, feedlots would rather feed cattle for a shorter period of time; therefore, the price of a 750-lb steer in February is not too different from that of a 550-lb steer in November. This would indicate that, when corn price is high, the price margin between a 750- and a 550-lb steer is actually favorable to backgrounding. However, because corn prices are high, cost of gain is likely to be high also. Therefore, there is a risk that profits can be compromised by cost of gain in spite of a favorable price margin. Producers must then seek alternative grain sources and byproducts to ensure profitability during these years.

Price margin between 550-lb steers in May and 750-lb steers in September was better predicted by factors affecting price of beef than price margin between 550-lb steers in November and 750-lb steers in February. Beef production trends, January 1 beef cow inventory, beginning feedlot inventory in May and the price of corn in May were most impacting, and accounted for 81% of the variation in price margin. January 1 beef cow inventory and May 1 feedlot inventory had negative effects on price margin (550-lb steer prices in May were higher than 750-lb steer prices in September). Greater May 1 feedlot inventories are likely associated with higher price margins as they are indicative of greater expected beef supply.

Similarly, January 1 beef cow inventory is negatively related to price margin, as it is indicative of greater beef supply. Price of corn in May is positively correlated with price margin, indicating that if corn grain prices are high in the spring, demand for 750-lb steers is increased, as they take fewer bushels of corn to finish.

Cow-calf producers who wish to retain ownership of fall calves for grazing until May must keep an eye on beef production trends, beef cow inventory, month-of-weaning beginning feedlot inventory, and corn prices during the weaning month. When all indicators of beef supply reflect decreasing supplies, the price of a 750-lb steer in September is closer to the price of a 550-lb steer in May, thereby favoring stockering cattle in summer pastures. Years of high corn prices also favor retaining fall calves for summer grazing because when corn price in May is high, the price of a 750-lb steer in September is closer to that of a 550-lb steer in May. Because this system of growing cattle is based on grass and not grain, profitability of the stockering enterprise is not fully dependent on cost of grain. Therefore, the potential for profit during years of high corn grain prices is good.

Conclusions

Backgrounding can be a profitable enterprise, but it requires that producers watch market and production conditions to reduce or avoid the negative impact of factors such as beef or grain prices. Additionally, producers must make a concerted effort to record basic information from purchase and sale prices and weights, feed usage and cost, and veterinary, marketing, and other direct and indirect costs. Summarizing and analyzing this information are necessary for producers to determine the profitability of the backgrounding operation. Paying particularly close attention to sale and purchase price, feed price and feed efficiency are paramount to reach and maintain profitability. Also, producers need to understand that high corn prices tend to favor growing cattle from weaning to yearling weights particularly when grazing cattle during summer months or using alternative feeds and grains for backgrounding. Pressure on prices due to increasing beef production or increasing beef cow inventories should make producers consider selling calves at weaning.

Additional Resources

Backgrounding diets: www.ianrpubs.unl.edu/beef/g1228.htm

<http://www.gov.mb.ca/agriculture/livestock/beef/baa05s03.html>

Economics info: <http://www.iowabeefcenter.org/content/markets.htm>

Livestock Development Branch, Saskatchewan Agriculture, Food and Rural Revitalization, August 2003, [Backgrounding Beef Cattle in Saskatchewan](#).

Statistics site that may help understand trends: <http://www.usda.gov/nass/>

Lesson 6
Economics Quiz

1. List one economic and one management factor that a backgrunder needs to understand.
2. Pay-weight to pay-weight performance is used to assess the **economic or biologic performance** of the backgrounding operation. (choose one)
3. Define what expenses go into calculating yardage costs.
4. If the yearling market (850-lb steers) is expected to be at \$1.00/lb, and cost of production is \$.45/lb for steers purchased weighing 550 lb, how much can a producer afford to pay for these steers and expect to break even?
5. What is the proportion of feed costs in the total costs of backgrounding a steer?
6. If an operator backgrounds cattle at a cost of \$.45/lb and can sell those same cattle as heavy yearlings for \$1.00/lb, what is the feeding margin in that operation?
7. Using the equivalent values of profit determinants, explain what alternatives you may have when feeder price increases \$2/lb so that profit remains at the same level.

8. What two main factors impact fed steer price?

9. What single factor has maintained beef prices up in the last two years?

10. Everything else held constant, years of high corn prices have a positive or negative impact on the price of a 750-lb vs a 550-lb steer?



Name _____ Phone _____

Address _____

Fax Optional) _____ Email _____