Backgrounding Beef Cattle in Saskatchewan

Introduction

Backgrounding refers to the growing, feeding and managing of steers and heifers from weaning until they enter a feedlot and are placed on a high-concentrate finishing ration. Backgrounding increases the value of cattle, utilizes local feed supplies, and keeps more cattle in the province for local feedlots to access.

Backgrounding is an emerging sector of the cattle industry. Feedlots are purchasing backgrounded cattle because there is reduced sickness, decreased input time (because they are not weaning calves), and consistent weight gains already established. The process of backgrounding is used to control weight gains so cattle gain enough muscle and bone before gaining fat covering and marbling. For example, a backgrounding operation could feed 500 pound steers to gain 1.5-2.25 pounds per day for approximately 150- 200 days to produce 750-900 pound feeders. The average daily gain of the steers will depend on management, feed ingredients, genetics, and pasture grass production (if applicable). For gains of greater than two pounds per day, calves are usually fed in a dry lot only.

The profit a producer makes from backgrounding is based on margins (the difference between the selling price and the buying price) and the weight put onto the feeder. Variation between the prices at different weight breaks will result in changes to the margin. Less variation in prices means less price risk. This means it is important to calculate your best options based on the margin between cattle prices at 500-600 pounds and the prices at 800-900 pounds. *Know your cost of production.*

Backgrounding is an option for farmers who would like to utilize excess roughages or put added weight on calves after weaning. Backgrounding is an alternative for farmers who have good quality roughage available, extra time during the year to work cattle, and the desire to have a flexible cattle business. Backgrounding can be used by the producer to take advantage of the fact that feedlot operators are often willing to pay more for a continual supply of uniform, pre-conditioned feeder cattle.

The cattle cycle in North America has traditionally been based on changes in supply and demand. Reduced cattle supplies had invoked higher slaughter prices. Large cattle supplies invoked lower slaughter prices. Market prices over the last decade have been more influenced by global demand as Canadian and U.S. beef exports have increased. Finished cattle prices are influenced by North American beef cutout values. When the cost per pound of gain in the feedlot becomes high relative to finished cattle prices, calf prices are lowered relative to both yearling and fed cattle prices. When calf prices are low in relation to yearling prices, many producers shift to backgrounding their calves. The calf crop decreases over time due to low calf prices, first depressing prices further during the cow herd reduction and eventually increasing beef prices as supply decreases. When slaughter prices are high in relation to cost of gains in the feedlots, calf prices rise faster and higher than yearling prices, which is unfavourable for producers to background their own calves. This causes cow herds to expand and feedlots to place younger, lighter cattle on feed and more feed grain is used.

There are two ratios that must be monitored in making a decision to background cattle. The beef steer/barley price ratio is the price of AAA slaughter steers per hundredweight (cwt) divided by barley price per bushel. This ratio is a simple but accurate indicator of shifts in cost of feedlot gain in relation to beef cattle prices.

Increases in the ratio favour selling calves at weaning and decreases in the ratio favour retaining calves for backgrounding to a heavier weight.

The ratio of yearling to calf prices is the second ratio. This ratio is very important for producers to keep track of market trends, especially since prices are set in mid-west USA. There has been an inverse relationship between the beef steer barley ratio and the ratio of yearling to calf prices. (An inverse relationship means when one increases the other decreases.) When the steer barley price ratio goes up, the yearling to calf price ratio goes down.

The feeder market is influenced by breakeven points, barley and US corn prices, interest rates, and fluctuating exchange rates. Table 1. demonstrates the effect of different market and production factors on the price of a 550 lb steer. The preferred body type for backgrounding calves is a small to medium framed animal. By the time the backgrounding process is complete, these calves should meet the feedlot demand for cattle that weigh 800 to 900 pounds. The energy level of the feed should be increased or decreased for the feeders to gain at the desired rate. A consistent group of calves is important. They must be consistent in size and quality when the backgrounding process is complete.

Economics of Backgrounding

Profit potential of the backgrounding operation will be the primary factor in deciding whether to background cattle or not. Desired end weights will usually be weights where the feeders can be placed on a finishing program without finishing at too light or too heavy a weight. The target weights may vary with the type of animal fed. Weaned calves are still in an immature growth stage and must gain a substantial amount of weight before they are ready for finishing. If small to medium frame calves are pushed with high energy rations too early after weaning, it results in early fattening and light weights at slaughter. On the other hand, keeping large frame calves on a growing ration too long can cause very heavy finishing weights. Beef carcasses that are off-weight will result in reduced profit due to lower feed efficiency. The energy level of the feed should be adjusted up or down periodically for the feeders to reach the desired weight at the desired time.

Table 1 – Impact of market and production changes on 550 lb steer price

Factor	Change	Price Impact
Live Cattle Futures	$1/cwt	+ $3.20/cwt
Canadian Dollar	1 cent	- $4.50/cwt
Basis	$1/cwt	+ $2.50/cwt
Barley	$0.50 per bushel	- $10/cwt
Out Weight	50 lbs	+ $2.50/cwt
Conversion	5% change in feed use	- $4/cwt
Death Loss	1% (i.e. 1% vs 2% DL)	- $3/cwt

Brian Perillat,Canfax, 2019

There are several different systems which may be used to background cattle:

- Calves can be bought in the spring, fed for 30-60 days in a feedlot at a lower rate of gain, grazed over the summer (summer-backgrounded), and sold in the fall at 800 to 900 pounds or fed to finish;
- Calves can be retained from the herd or bought in the fall, wintered in a feedlot at a lower rate of gain, grazed over the summer, and sold at 800 to 900 pounds or fed to finish; or
- Calves can be retained from the cow herd or can be bought in the fall, fed in a feedlot at a lower rate of gain (winter backgrounding), and sold in four to six months or fed to finish.

Some producers buy and sell backgrounded cattle throughout the year. This helps to maximize the use of equipment and facilities. Consistency is very important when buying and selling cattle, since feedlots demand consistent packages of cattle.

Backgrounding Calves on Feed

Backgrounding programs are intended to control the growth of the calves. Rations are based on good quality forage with very little poor quality feeds such as straw, chaff, or grain screening pellets. This type of feeding program reduces the number of light weight carcasses by giving the calves time to develop sufficient frame and muscle, which results in the calves being placed on finishing rations at the proper stage of growth.

Backgrounding Calves on Pasture

Feeders or 'grassers' are placed on a good quality, tame forage pasture about mid-May. Since larger numbers of cattle are usually backgrounded, rotational grazing is often used. Rotational grazing and other good management practices can lead to increased stocking rates. In drought years, supplementary feed may also be used to increase gain (however, this also may decrease margins).

Feeders are often grazed on forage until early September and sold at about 800 to 900 pounds. September to November are usually high market months, and traditionally, buyers purchase the bulk of grass cattle at this time. If feeders are retained, they can be left on pasture for a longer period of time or placed in the feedlot in September so they are ready for market in November.

Retained Ownership

Self-Finishing

This involves the producer deciding to finish the feeders on the farm. Home feedlots allow producers to utilize barley (or other feedstuffs) as a feed source and to maximize returns from existing labour and management. Self-finishing also allows the increased use of facilities and machinery that may otherwise be idle for the better part of the year.

Custom Finishing

Many producers decide to custom finish their cattle to take advantage of increased feeding and marketing expertise, and specialized services a feedlot may provide. This may also provide the producer with increased profits and with an additional market for on-farm feed grain. The decision to custom feed also depends on the perceived value of services that the feedlot will provide, and the additional market opportunity in owning the cattle to heavier weights.

Custom feeding cattle for someone else can increase economies of scale, as costs are spread out over additional cattle. This also helps decrease risk since there is no initial investment in animals.

Options for Purchasing Calves or Light-Weight Yearlings

The type, weight, and sex of the cattle purchased should fit with the objectives of your operation, and your marketing plan. Different classes of cattle may be hard to find at certain times of the year; calves may be more easily sourced in October to December, whereas light yearlings may be sourced in February through April depending on demand. It is essential that the yearlings are bought at a light weight to avoid overweight animals once the backgrounding process is complete. Feedlots do not want to purchase overweight animals since these animals represent less "finishing opportunity". In addition, some packers say they will discount overweight carcasses in the future, which may reduce profits. The weight of the cattle upon completion of backgrounding may also dictate which market you sell into, Canadian or USA. It may be difficult for some producers to choose the rate of gain that is most economical in a backgrounding program. Faster rates of gain reduce interest costs and the amount of feed needed for a pound of gain. Some backgrounding production costs, such as buying, selling, and vaccination, are on a per head basis, therefore, decreasing the cost per pound of gain as more weight is put on to feeders. Steers selected for backgrounding usually weigh between 450 to 650 pounds, and heifers between 400 to 600 pounds. Heifers cost less to purchase but also gain at a slower and less efficient rate than steers.

Spring Purchasing

Purchasing calves that are 400 to 650 pounds in the spring may be difficult since few producers tend to calve in the fall. An option is light weight yearlings. Producers selling their yearlings in the spring often sell uniform groups of cattle. The smaller animals do not fit into these groups very well and are therefore sold separately. These smaller animals will fit well into a backgrounding enterprise. Prices may vary depending on the number of light weight feeders available and the demand for them. Consult the Saskatchewan Cattle Market Weekly Update at www.saskatchewan.ca for current and historic cattle prices.

Fall Purchasing

October to November are the traditional months for marketing weaned calves. Prices usually depend on supply and demand. A large supply may result in lower prices. Purchasing calves at this time for backgrounding carries a certain amount of market risk, the value of calves at that point versus the value of feeders four months into the future. Producers should weigh their options, accurately forecast costs, and calculate break-even points to determine the profit potential of all options. Consider Western Livestock Price Insurance Program (WLPIP) coverage to lower risk and provide floor price options to cattle feeders. Visit the Western Livestock Price Insurance website for more information.

Retaining Homegrown Calves

If you decide to hold on to some of your calves and background them, the potential for profit is much greater for the small to medium framed calves. Light calves start the backgrounding process at a lower weight and have better potential of being the ideal weight (800-900 pounds) by the end of the backgrounding period, especially if your herd has top genetics for growth. (However, this will depend on why the calves are light.) These calves may command a premium price due to the more efficient rates of gain in the feedlot, or can be retained for self-finishing or custom-finishing.

Management of home-grown calves is very important because the operator assumes the risks of stresses due to weaning and placing calves on feed. At the same time, this represents opportunity because the backgrounder has the option of spending more time with the calves than larger feedlots can. A producer should be able to reduce some of the stress (i.e. less transportation, no major environment changes) and be able to get the calves on to feed more efficiently. The newly weaned calves need special attention and should be checked at least three times a day. If calves get off to a healthy start, they have a better chance of staying healthy, thereby increasing the producer's profitability.

It is essential that you know the performance potential of your herd and the costs of feeding calves. Take animal weights, record feed provided, feed test and develop a ration using CowBytes or with the help of a nutritionist. By keeping records of performance, you will be better able to manage your herd and to relate the performance to costs of production. For example, if feed prices increase, you may not want to retain calves for that year because your returns may be too small.

Risk

A backgrounding enterprise requires long term and operating capital. As with any other farming enterprise, there is risk associated with these enterprises. Sharing ownership of the cattle with a feedlot can decrease risk because both parties have a vested interest in the cattle. Other risk management options include retained ownership, forward contracting, price insurance (WLPIP) and share or purchase agreements.

Costs and Returns of Backgrounding

Revenue

When you decide to market will depend primarily on three things. First, the use of your facilities will dictate when the feeders must be out of the feedlot. For example, if you use the same facilities for calving, the feeders must be removed before calving season.

The second consideration is your feed resources. If you have a low energy feed, calves will be fed longer since they are gaining at a lower rate. If the feed is high in energy or you have good genetics, calves will be marketed sooner due to higher average daily gains.

The third consideration is the needs of the feedlot, which may have specific requirements for weight gains and finish when they purchase cattle.

It is extremely important to put extra effort into marketing your cattle since this is where all your hard work can really pay. Study the markets and aim for a period that the prices may be strong.

Operating Costs

Operating costs are those costs that are incurred as a direct result of production and, therefore, these costs would cease if production ceased. In order to be viable in the short run, a producer must cover all operating costs.

Operating costs include feed, livestock purchases, veterinary fees and medicine, fuel and repairs, pasture fees, insurance, manure removal and death loss.

The cost for manure removal is typically based on custom corral cleaning rates. If manure removal is not contracted out, this cost should be included as machinery, fuel, and repair expenses as well as the capital costs of the equipment.

Death loss is charged on the average value of the feeder (excluding transportation and yardage), calculated by averaging the buying and selling prices.

Fixed Costs

Fixed costs are associated with an enterprise that would continue even if production was discontinued. In order for an enterprise to be profitable in the long run, it must be able to cover both fixed and operating costs. The fixed cost of depreciation and interest on investment can be equated to the funds that would be required to make payments on a loan to finance a large portion of the enterprise. Financing these fixed costs is a very important management decision. Interest on investment is calculated and included as it represents the real cost of investing capital in the cattle enterprise rather than into an investment of another type. The interest rate used represents current rate on term investments.

Calculating Returns

The Saskatchewan Ministry of Agriculture has developed a breakeven tool to assist producers in planning. The Cattle Feeding Breakeven Calculator can be used to estimate potential profit or loss when backgrounding or finishing cattle.

Learn More

For more information, contact your nearest Livestock and Feed Extension Specialist or call the Agriculture Knowledge Centre at 1-866-457-2377.