

BACKGROUNDING OPPORTUNITIES

INTRODUCTION

The term backgrounding is often used loosely, however it should be described as a process that adds value to both farm/ranch raised feeds as well as the cattle by "marketing" the feeds through the cattle. With that said, the profitability of backgrounding is determined by feed costs, feed efficiency, and marketing, just like any other phase of the beef feeding industry. Backgrounding can be incorporated into most any beef operation if they have the ability to confine cattle in manageable group sizes and if they have adequate on farm/ranch feed storage (hays, silages, grains, and supplements).

Calves that have been through a backgrounding program (commonly 45-90 days) are appealing to buyers because: 1) they know how to eat dry feed out of a bunk, 2) they know what a waterer is and how to use it, 3) their immune systems are "primed" if the correct rations are formulated and the proper vaccination protocols have been implemented. However, the calves should not be too "fleshy". This typically concerns cattle buyers because too much compensatory gain has been taken out of the calves. Therefore, calves should be fed to gain about 1.5-2.5 lbs/hd/d to avoid an over fleshy problem.

Backgrounding calves may be a viable option during summer drought periods as well. When forage quality and quantity are dramatically reduced and cannot support cows and calves at a desired level of performance, then an early weaning/backgrounding program can be initiated. This will allow the cows to pick up body condition throughout the summer and allow the producer to grow calves at a pace that will allow them to market calves when the time is right. Additionally, there can be a demand from the feedyards for these lightweight warmed up calves.

STARTING CALVES IN A BACKGROUNDING PROGRAM

First of all, water is often an overlooked nutrient and cattle simply will not eat if plenty of good, clean water is not available. Growing calves will consume 5-15 gallons/day depending on size and temperature. Allowing 1 foot of tank/waterer space per 20 head is a good guideline to work from. To minimize muddy conditions around the water tank, a 6-foot concrete apron should be extended beyond the tank.

Secondly, calves know what grass is, so use it to your advantage. It can be an extremely effective tool for starting calves in the lot. Provide calves with good quality grass hay for 5-7 days. During this time period introduce your starter ration or complete pelleted feed on top of the grass hay. This will force the calves to eat the starter diet and become accustomed to it when they are trying to gain access to the grass hay. After the calves know what the bunk is and are eating well, hopefully within 7-10 days, then further ration adjustments can be made.

If diets are to consist of large amounts of grain, ration changes should take place over a 3-5 day period (only if intakes are adequate). Avoid any excessively processed grains. They will potentially induce digestive upsets. Grain processing may not even be necessary if feed grain prices are low and the grains are used in high roughage rations. The slight increase in feed efficiency that occurs when grain is processed (grinding or rolling) may not yield a high enough return if grain prices are low. Another pound of grain may be fed in order to get the same performance response as processing and cost less. However, if grain prices increase, then it would be beneficial to coarsely crack/roll grains.

Also, avoid large amounts of fermented feeds (silages) in the starting program. Cattle may have a slight aversion to fermented feeds if they are offered in large quantities or if they simply were not harvested and stored properly. These feeds should be gradually stepped up in the feeding program, similarly like grains.

MANAGEMENT

There are several management practices that should be considered when feeding cattle for optimum performance and minimal costs. First, excessively muddy lots can be a performance robber. Muddy conditions can reduce feed efficiency up to 30%. If calves are to be fed from late fall to mid-winter, then there are chances for excessive moisture to occur. Therefore proper lot design is important. Pens should be sloped away from the bunk. Pens should have an 15-20 foot concrete apron by the bunk. If cattle have to wade through mud on their way to the bunk and then stand in the mud to eat, they simply won't eat as much and more of their energy is used to battle the muddy conditions. Generally, pen size should be 150-300 square foot per calf. The bigger the cattle, the more space is needed. The pens should also have mounds in them. This will allow the cattle to rest on a dry place and can help with drainage. Along these same lines, proper wind protection is a must. Windbreaks should be about 100 feet away from the pens to avoid snowdrifts in the pen. Depending on calf size, 18-26 inches of bunk space should be allowed per calf when starting them on feed. Especially if only using an once/day feeding schedule. If feeding twice/day, then 8-12 inches/calf should be required. More information is available on a video developed in cooperation with Iowa State University entitled "You Have a Lot to Lose". The video and a brochure are available from your Land O Lakes feed cooperative.

Avoid feeding any feedstuffs on the ground. This practice will result in considerable feed wastage and allow for easier transmission of disease factors. Utilize some type of feed bunk system as well as bale feeders. Hay that is fed on the ground is likely to be used as bedding and can result in up to 45% wastage in some cases.

Forage processing will depend on the feeding system. If a total mixed ration (TMR) is used, then forage processing is necessary to get a proper mix of the ingredients. If the hay and grain are fed separate, forage processing will depend on the labor and capital resources available. Research indicates that cattle will have higher forage intakes and digestion if the hays are processed. Which can help improve performance.

Proper mixing is critical. Information relating to mixer wagon economics, selection and operation was developed in cooperation with South Dakota State University and is available through your Lank O Lakes feed cooperative. The video and brochure are entitled "Weighing the Difference".

Bunk management is a critical factor in any feeding operation. Basically, bunk management is delivering the correct amount of feed at the right time in a consistent manner for a given period of time. Cattle that are fed higher proportions of grain in their diet are more likely to have digestive upsets due to improper eating/feeding behavior. This in turn reduces intake and decreases performance, efficiency, and profitability. The goal is to deliver the exact amount an animal will consume in a 12-24 hour period, depending on feeding schedule. If a high grain diet is fed, never adjust the feed offered more than 5% of the average consumption. Also, never make a feed intake adjustment and a ration energy adjustment at the same time. This will just compound problems. Make sure that feed bunks are cleaned weekly. Any wet, moldy, contaminated feed in the bunk will decrease the animals desire to want to go to the bunk and eat.

Self-feeders can be used in a backgrounding program to help reduce labor costs. However, it is very important to attempt to calculate feed intake of calves eating out of a self-feeder. Cattle will tend to want to overconsume feed if they have free choice access to a feeder. If the cattle do overconsume, this may lead to unnecessarily high feed costs or greater than desired performance. Additionally, there tends to be less daily observation of cattle when self-feeders are used. This can lead to inadequate observation of sick, lame, and bloated animals, which will subsequently decrease performance and potential profitability. When using a self-feeder try to use highly-digestible fiber feedstuffs, such as wheat middlings, soybean hulls, corn gluten feed, beet pulp, or a commercially available pelleted feed with digestible-fiber sources. These feedstuffs will help alleviate any potential digestive upsets that may occur when an animal overconsumes at the feeder. Also, try and maintain 3-5 inches/calf of trough space when using self-feeders. Also, clean feeders daily of any wet and moldy feed as well as the fines, which can accumulate. This will help insure adequate consumption and safety at the feeder.

Within any feeding operation, the proper usage of feed additives and implants is a must. Implants in a backgrounding program can increase average daily gain (ADG) by 8-10%, if the targeted gain is above 1.5 lbs/hd/d. Ionophores can be used to improve feed efficiency by up to 10%. Ionophores (Rumensin and Bovatec) can also be used to help control coccidiosis if fed at the proper levels.

ECONOMICS

Backgrounding is a way to prepare calves for the feedlot, either for you in retained ownership programs or for the feedlots themselves. A good program includes pre-weaning vaccinations coupled with an adequate mineral/trace mineral/vitamin program about 45 days pre-weaning through the growing period. Budgeting analysis from Kansas State University suggests that there can be a 6.98 – 8.87% return on

investment if steers and heifers can gain above 2.0 lbs/head/day. Additionally, some studies indicate that buyers are willing to pay \$3/cwt for properly prepared calves. This management practice offers marketing alternatives throughout the winter as opposed to selling weaned calves on the spot market at one time of year. When feeding these animals it is necessary to determine the desired performance to be achieved with your feeding program. Typically, the higher the ADG, the cheaper the cost of gain, but you take the risk of getting calves too fleshy and possible taking discounts at marketing time. In terms of marketing, seasonal price patterns would favor a January/February market for feeder cattle versus a March/April market. So, proper marketing, combined with good management and nutrition practices can increase the profitability of a backgrounding program.