

Feeding Young Bulls for Beef Production

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Take Home Message

- ✓ Bulls naturally grow about 20 to 30% faster than unimplanted steers (15 to 25% faster than implanted steers) and need about 15 to 20% less feed to put on a pound of live weight.
- ✓ They have a higher dressing percent (carcass weight as a percentage of live weight) and their carcasses have greater cutability (higher lean meat content) than steer or heifer carcasses.
- ✓ What's more there's nothing in the Canadian Beef Carcass Grading System which discriminates against young fed bulls (sometimes referred to as virgin bulls).
- ✓ Despite the common misconception, their beef is almost indistinguishable from steer beef.
- ✓ Among consumers who claim to be able to tell the difference, about half rate bull meat preferable!

So why do we castrate our bull calves? A lot of the reason is tradition, but the bottom line is that bulls are more difficult to manage than steers. This simple statement has ramifications for all sectors of the beef system. However, given the huge cost-of-production advantage, many producers are successfully seeking ways around the management problems.

The best management tool is knowledge, so let us review what is known about bull behaviour and see how we can overcome the difficulties. The basic problem is that from puberty on, a bull needs an established place in the 'bunting order' of his peer group. Once the order is established each bull will regard himself as either dominant or submissive to each other bull he meets (assuming they recognize each other) without having to duke it out every time. From time to time a bull will challenge for a higher position, and like children in a school yard (or hockey players in a hockey arena) this will set off a series of skirmishes, most of which is mainly

for show. Once this is settled, and the bunting order re-established, things will settle down again. Clearly, a large number of bulls in close confinement, with not much else to occupy their time, will be subject to a lot of these types of disruptions.

Modern beef feedyards typically hold pens of 200 to 300 feeders in close confinement. The cattle in the pen may have come from several sources and if they are bulls, will be past puberty. The establishment of a bunting order among 200 unacquainted young bulls is likely to take a long time. Add to this the boredom factor and you have a recipe for continual challenges and side skirmishes throughout the feeding period. To make matters worse, a small percentage of bulls will stand to be ridden by other bulls, not only endangering themselves but stirring up activity all over the pen. No wonder most feeders would prefer to avoid bulls; the damage to bulls, pens, equipment and occasionally stockmen, represents more trouble than they need.

Marketing and slaughtering young beef bulls can raise a whole new set of problems. The basic problem is a phenomenon known as 'dark cutting'. When an animal is nervous during the period immediately prior to slaughter, it comes under the influence of the 'fight, flight or fright' hormones such as adrenaline. This can lead to a well researched series of metabolic responses in the muscle causing the meat to be dark and sticky; that is 'dark cutting'. Because bulls react more strongly than steers they are more likely to produce dark cutting carcasses. These are graded B4, and are typically discounted to cow beef prices.

From the foregoing descriptions it is clear that the problems of feeding bulls result from their behaviour, and that they should therefore be amenable to management. Given the potential cost-of-production advantage, some producers are finding ways to modify their management systems to cash in. But it requires cooperation from operators at every stage of the beef production system, as indicated under the following headings. In each case where there is a problem, there is a solution, but it may cost money to implement, and may involve changes from established practice.

Cow-calf producers who sell bull calves in the fall either to feeders or backgrounders will face a serious and justified price discount, particularly if they are offered in small lots at auction. It is most important that producers who are planning to leave their bull calves intact, should be clear before they start when, where and how they will be fed after weaning. While there are greater profits to be made from feeding and marketing young

bulls properly, a serious wreck awaits those who go into it without the proper information. If you want to raise young feeder bulls and capitalize on all the advantages they offer, you have to accept that they are not steers, and modify your management appropriately.

Bulls for Beef

Tips for packers

Opportunities from processing young bulls:

- Higher dressing percent; higher cutability; leaner carcasses.

Risks:

- Downgrading:
- to B1 for lack of finish;
- to E for excessive masculinity;
- to B4 for dark cutting;

Managing the risk:

- Train buyers to recognize lack of finish and masculinity in bulls; greater muscling sometimes disguises inadequate fat cover (potential B1); crest development and staginess suggest excessive masculinity (potential E).
- Dark cutting results from excessive pre-slaughter excitement. Ensure that arrival of slaughter bulls is anticipated and that the bulls are unloaded, moved directly to the knocking box with a minimum of stimulation and dispatched without delay.

Tips for truckers

Risks in transporting young bulls:

- Bruising; damage to truck; dark cutting carcasses.

Managing the risk:

- Bulls should be loaded (preferably early in the morning) with a minimum of force and excitement. Do not over-crowd or under-crowd. Transport directly from the feedyard to the packing plant; do not pick up other livestock en route; drive smoothly to avoid unbalancing bulls; notify the plant of your ETA and any changes to your ETA; unload immediately upon arrival at plant. If unloading must be delayed for any reason, keep driving around the block. Unload bulls gently and quietly.

Tips for cow/calf producers

Advantages of raising bull calves:

- Avoids the cost and risk of castration; greater weaning weights; delays selection of breeding bulls.

Risks:

- Discounted prices from feeders.

Managing the risk:

- Retain ownership through to slaughter (custom feed or use farm feedlot, depending on experience and management / marketing skills). Feed only herdmates in a single pen. If selling to feeders, negotiate a contract for direct delivery of a number of bull calves of known type and background, particularly for small numbers (under 50) of bulls calves.

Tips for feeders

Advantages of feeding young bulls:

- Faster growth rates; greater feed efficiency; less risk of over-finishing.

Risks:

- Fighting; riding; damage to bulls and facilities; discounted prices from packers.

Managing the risk:

- If possible, feed bull calves from different herds in separate pens. Match pen size to age and familiarity of bulls on arrival, modifying for temperament- type of bulls and experience of pen-checkers in managing bulls ie:
 - newly weaned, herd-mate bulls: up to 150 / pen
 - backgrounded, herd-mate bulls: up to 125 / pen
 - newly weaned, unacquainted bulls: up to 75 / pen
 - backgrounded, unacquainted bulls: up to 50 / pen
- The first few days are critical. Bulls must be allowed to establish a social order but prevented from injuring each other or damaging facilities. Fighting will decline over the first week, more rapidly in smaller groups. Some bulls will be consistently bullied or ridden; they should be removed from the pen. They can be added to a pen of steers. Every effort should be made to maximize space per bull and create an interesting environment in the pen: short panels of fencing inside the pen or short escape chutes along inside of fence lines; large tires (or any similar toy) which the bulls can safely bunt; some feeders find it helpful to use electric fencing inside the pen to prevent bulls bunting and cribbing on fence boards.

- Market direct to the packer. Ensure that the packer/buyer is familiar with bulls. Sell rail grade if you are an experienced bull feeder (know how to recognize under finished (B1) and staggy (E) bulls), and have confidence that your bulls will be handled gently from your pen to the knocking box. If you force the packer to take the risk on grade (ie. selling rail weight) the price will obviously be discounted to cover the risk. Ensure the plant is quite clear that you are sending young bulls.

Tips for backgrounders

Advantages of backgrounding young bulls:

- Greater feed efficiency.

Risks:

- Fighting; riding; damage to bulls and facilities; discounted prices from feeders.

Managing the risk:

- Follow the same general guidelines as feedyard operators. Keep herdmate bulls together as a group to increase their value to feedyard operators.