

## A Fact Sheet for the Canadian Beef Industry

Dr. Melissa Moggy

## **Purpose of Castration**

The purpose of castration is to stop the production of male hormones by removing or destroying the testicles. Methods currently practiced in Canada include bloodless or surgical castration.

Benefits of castration include:

- Prevention of unwanted breeding
- Prevention of mounting of cattle, which can cause injury, resulting in "dark cutters"
- Decreased aggression to other cattle and farm personnel
- Improved meat quality
- Premium from markets for steers [1]

## Age to Castrate

All methods of castration are stressful and painful. However, castrating at an early age minimizes such factors. It should be noted that younger calves have smaller blood vessels leading to their testicles. Therefore, castrating at an earlier age has a reduced risk of excessive bleeding.

Studies have found that weight loss related to castration increases as the age at time of castration increases [2]. The National Farm Animal Care Council **(NFACC)** does not recommend castration during weaning, due to the stress that the calf is already experiencing [3].

One study found that calves castrated prior to weaning had increased feed intake and average daily weight gain, in comparison to calves castrated at weaning [2, 4]. To determine the best time to castrate for each technique, consult with your veterinarian.



Figure 1: Restraint of an older calf for castration

## **Surgical Castration**

The surgical method of castration involves surgically removing both testicles. There are many techniques to surgically castrate calves and these techniques vary depending on the age of the calf. Despite the technique used, proper restraint (example in Figure 1) is important for the safety of the calf and the person performing the castration. Only a trained individual should perform surgical castration.

Make sure that both testicles have descended into the scrotum. If they have not, record the calf's number and have your veterinarian check the calf at a later date. Prior to surgical castration ensure that all the instruments are sharp and clean. Avoid surgically castrating calves during fly season. If this cannot be avoided, spray the area with a fly repellent that is safe to use on open wounds. Consult with your veterinarian to determine the best method to surgically castrate the calves in your operation.

Following castration, it is important to keep calves in a dry and clean area to avoid the risk of infection. The risk of infection is greater with an open wound than with the bloodless methods of castration (i.e. banding or Burdizzo).

Monitor the calves for signs of excessive bleeding or purulent discharge from the wound, and that the calves continue to eat and drink. A slow drip of blood from the wound is normal but blood flow faster than a slow stream is reason for concern.

#### Pain

All methods of castration cause pain, but castrating at an earlier age has been shown to lessen the amount of pain [1]. Indicators of pain include:

- Tail swishing
- Stomping feet
- Head turning
- Abnormal wide stance
- Abnormal gait
- Reduced activity level
- Reduced interest in feed and/or water

#### **References:**

Work with your local veterinarian to plan an appropriate castration protocol for your operation.

# For Your Information



## **Code of Practice Requirements**

Effective January 1, 2016: Use pain control, in consultation with your veterinarian, when castrating bulls older than 9 months of age.

Effective January 1, 2018: Use pain control, in consultation with your veterinarian, when castrating bulls older than 6 months of age.

### Acknowledgement

Dr. Cody Creelman, DVM, Veterinary Agri-Health Services Ltd., supplied the photo used in this fact sheet.

- American Veterinary Medical Association (AVMA). 2014. Literature review on the welfare implications of castration of cattle. Available at: https://www.avma.org/KB/Resources/LiteratureReviews/Documents/castration-cattle-bgnd.pdf Accessed: 12/11/14.
- 2. Bretschneider, G. 2005. Effects of age and method of castration on performance and stress response of beef cattle: A review. Livest Prod Sci. 97(2-3): p. 89-100.
- **3.** National Farm Animal Care Council (NFACC). 2013. Code of practice: for the care and handling of beef cattle. Available at: www.nfacc.ca/pdfs/codes/beef\_code\_of\_practice.pdf Accessed: 08/29/14.
- 4. Warnock, T.M., Thrift, T.A., Irsik M., Hersom, M.J., Yelich, J.V., Maddock, T.D., Lamb, G.C., Arthington, J.D. 2012. Effect of castration technique on beef calf performance, feed efficiency, and inflammatory response. J Anim Sci. 90(7): p. 2345-52.

