

## General Advantages & Disadvantages of Castration

### **Advantages:**

- Male hormones (testosterone) levels are decreased, as well as prevent semen production, which reduces sexual activity.
- Enforcing docile animals on the farm.
- Decreasing costs associated with fencing, and bull's destructive behavior.
- Castrated calves are in higher demand therefore fetching a higher price as compared to intact male calves.
- The meat is more palatable, marbling occurs and there is a longer shelf life.
- There is a reduction in dark cut (muscle pH) and the hides are easier to remove.

### **Disadvantages:**

- Inflicts pain onto the animal.
- Can decrease feed intake which would decrease the daily weight gain by 10% to 20%.
- Can potentially decrease growth rate.
- The FCR (Feed Conversion Ratio) is decreased by 13 %
- There is a reduction in leaner meat with an increased deposition of fat

## Specific Advantages & Disadvantages of Castration

### 1) Burdizzo Emasculator Castration

#### **Advantages:**

- Bloodless
- Smaller reduction in weight gain as compared to surgical procedure or latex-band
- No open wound present therefore reduction in infection
- Can be done during the fly season as there is no risk for maggot infestation
- Quick and easy to perform once the skill is learnt
- Short term acute pain
- More painless when compared to cutting

#### **Disadvantages:**

- Can be unreliable if done incorrectly; causing stags
- Mistakes can occur if the correct area is not clamped, if the cord is not crushed properly and if the blood supply to the scrotum is disrupted which would result in gangrene
- Can cause injury to the animal or operator
- Equipment becomes inefficient after long term use and needs to be replaced
- Long term chronic pain

### 2) Elastic band castration

#### **Advantages:**

- Bloodless
- Quick and easy to perform

- Scrotum falls off on its own
- Reduced chances of infection because there is no open wound
- Can be done during fly season as there is no risk of maggot infestation

### **Disadvantages:**

- Potential for infections (blackleg & tetanus). May be advised to vaccinate prior to castrating
- Can miss the testicles
- Lower weight gain as compared to surgical (reduction in growth rate)
- EZE and Callicrate methods without anesthesia for older bulls considered inhumane and unethical (pain and discomfort)
- Large lesions may develop above the band site
- Slower wound healing as compared to surgical castration
- Band may break before atrophy of the scrotum
- There is an age limitation (older animals have more fat and chances of complete strangulation of the spermatic cord is reduced). Should not be used in calves more than 1 week old

## **3) Chemical/ Immunocastration**

### **Advantages:**

- Painless
- Bloodless
- No risk of infection
- Can be reversible if needed
- Decreased aggressive behavior due to the absence of testosterone

### **Disadvantage:**

- Can be reversible, therefore it is not a permanent method
- Limited length of effectiveness

- Decreased effectiveness when compared to cutting and banding
- Can have adverse drug reaction
- Vaccination at regular intervals is required
- Can have failure of vaccination

#### **4) Surgical castration:**

##### **Advantages:**

- Surgical wounds heal more quickly as compared to non-surgical procedures
- Less complications as the testicles are completely removed (therefore no sperm production)
- Permanent method
- Decreased aggressive behavior (because no testosterone production)
- Can be done on both young and older animals

##### **Disadvantages:**

- Requires skill
- Increased risk of infection due to it being an open wound
- Cannot be done during the fly season (high risk of maggot infestation)
- Not a bloodless procedure (risk of blood loss)
- Can have postoperative complications (haemorrhage etc)
- Not recommended to perform this procedure at a feedlot with muddy, wet conditions
- Greater reduction in weight gain as compared to Burdizzo
- Permanent procedure therefore it can not be reversed