



Castration Standard Operating Procedure

Corresponds with AW3.7 and AW3.9.

Justification

Castration should only be done where the procedure results in benefits to life time goat welfare, better flock management and a reduced health and safety risk to handlers.

Kids destined for slaughter before they are 12 weeks old, or before the onset of puberty, should not be castrated.

Details of procedure

Kids are restrained on their back by someone holding the kid and restraining the feet or in a device for kid restraint (docking cradle). The scrotum is palpated for evidence of two descended testicles. If evidence of hernia or cryptorchidism exists, standard castration will not proceed and the kid will be noted. Short scrotum castration may still be an option in this situation.

The following methods may be used:

- Application of a rubber ring, including short scrotum castration
- Bloodless Emasculator
- Surgical. Pain relief is mandatory

Rubber ring castration

Rubber ring castration works by constricting blood flow causing tissue below the ring to die and slough off. The process takes several weeks and leaves a sealed scar. There are two options for use of rubber rings. Standard castration by rubber ring is when the ring is placed at the neck of the scrotum above the two testes. The testes and the scrotum will then die and slough off. There is no blood loss with this method, but care must be taken to include both testes and not to include the urethra or a loop of intestine that has travelled down the inguinal canal (scrotal hernia) as these can lead to severe complications or death.

For short scrotum castration the testes are pushed up against the abdominal wall and the rubber ring placed below them around the scrotum. The ring prevents the testes from dropping back into the scrotum until the scrotum tissue dies and sloughs off. In this method the kid retains its testes but without the scrotum is unable to regulate their temperature rendering the lambs infertile. This advantage of this method is that testosterone is still produced by the testes and growth rates can therefore be higher than for kids that undergo standard castration. This method is also less painful as less tissue is involved. However, production of testosterone does



make the kids behave as if they were fertile rams and if retained post puberty they may attempt to mate does and fight with other males.

Bloodless emasculator (burdizzo)

A bloodless emasculator (also known as a burdizzo) is designed to crush the spermatic cords without breaking the skin. This crushing should be at a level that causes irreversible damage. The testes will then shrivel up and become non-functional, but remain within the scrotum. The bloodless emasculator should be applied to each spermatic cord in turn for 6 to ten seconds each – not across the full width of the scrotum. There are different sized emasculators and it is crucial that the smaller instruments designed for goat are used for kids. This is another method which does not break the skin, reducing the risk of post-castration infection, however it requires a greater degree of skill than rubber ring castration and a higher rate of failure is often reported. If failure occurs it will not be immediately apparent, running the risk of unintendedly fertile males running with the flock.

Surgical

This method involves cutting open the scrotum and complete removal of the testes. The bottom of the scrotum is drawn downwards – leaving the testes behind – and cut off. The testes are grasped one at a time and drawn downwards through the opening at the bottom of the scrotum until the cord breaks. This method is much less likely to lead to hemorrhage than cutting the cords. The aim of cutting the bottom of the scrotum is so the wound can drain. However, this is an open wound and infection, abscesses and/or clostridial diseases such as tetanus are a potential risk. This method is acutely painful when compared with the alternatives and can only be used when pain relief is utilized.

Pain relief measures

For rubber ring and bloodless emasculator, pain relief shall be applied when suitable pain relief is available on the market. Pain management options shall be discussed with a veterinary surgeon and options shall be reviewed regularly. See the additional pain relief guidance sheet.

Surgical castration without pain relief is not permitted.

Age

Castration should be done after a secure maternal bond has been established, and after the kids are 24 hours old. The procedure shall be carried out between the ages of 24 hours and 8 weeks.

A flock of goat will kid over several weeks. If this occurs in housing each individual kid can easily be castrated once the doe/kid bond is secure. For extensive flocks on pasture, trying to catch individual kids at young ages can lead to mis-mothering. Normal practice is therefore to gather the flock once the youngest kids are capable of safely following their mothers. In these



extensive situations the average age of castration is acceptable to meet the requirements of this standard. The average castration age of the flock can be calculated by reviewing the spread of kidding dates and the date of castration.

For example, an extensive flock that kids in a six week period between 1 September and 13 October and carries out castration on 3 November will have kids that are between 3 weeks and 9 weeks of age on castration day, with an average age of 6 weeks. This is acceptable. If the same flock carries out castration on 24 November kids will be between 6 weeks and 12 weeks of age and the average age will be 9 weeks – this is not acceptable.

Castration above the age specified in AW3.9.3 and AW3.9.4 may only take place if the criteria below are met.

1. The farm must raise rams for sale or retention as breeding stock
2. The farm must have a set of criteria to assess rams for suitability as breeding stock such as conformation, parent's genetics etc. [i.e. they shouldn't be keeping every ram that's born as a breeding animal]
3. An initial assessment of ram kids against the criteria must be made by the time kids are 8 weeks of age (if the normal method of castration is rubber rings) or by the time kids are 14 weeks of age (if the normal method of castration is bloodless emasculator) and any ram kids that don't meet the criteria must be castrated at this time.
4. Ram kids that pass the initial assessment, but which later develop traits that make them unsuitable for breeding may be castrated for retention in the herd/flock but only if castration is carried out using a bloodless emasculator with pain relief.

Care of animal(s) during/after the procedure

Kids should be handled quietly before, during and after the procedure.

Following the procedure, kids will be turned back onto dry, clean pasture or a dry, clean pen with their mothers.

Kids must be inspected regularly following the procedure and with minimal disturbance for signs of post-operative complications during the healing process, and appropriate action taken as indicated.

Complications can include sepsis – a potential risk if equipment is dirty; scrotal hernia – when a loop of intestine is included with the testes in band castration; haemorrhage – if the testicular artery fails to seal during surgical castration; and clostridial disease such as tetanus.

Precautions



Good hygiene should be practiced in relation to facilities, hands, handling and instruments with disinfectant being used and changed frequently.

Risk of infection can be limited by ensuring does have been routinely vaccinated and that the kids are vaccinated at kid marking.

Consideration of weather and yard conditions and fly activity should be made when planning kid marking (e.g. avoid muddy yards and wet or humid weather).

Qualifications, experience or training necessary to perform this technique

The procedure shall be performed or supervised by a competent stockperson, using well-maintained equipment designed specifically for the purpose.