



Castration in Sheep and Goats

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Introduction

There are several reasons why castration is desired in buck kids and ram lambs. Removal of the testicles by castration soon after birth has long been used not only to reduce unwanted male traits (aggressive behavior), but also to allow co-grazing with doe kids and ewe lambs with no worries about unplanned breeding (Figure 1).

The downside to castration is that removing the testicles also reduces growth rates, resulting in fatter animals that are usually less desired by ethnic consumers and influencing the final market price. Therefore, producers need to consider their overall management and marketing goals when deciding whether to castrate.



Figure 1. Castrated and intact St. Croix ram lambs (Reprinted with permission from Stephan Wildeus, Virginia State University, 2019).

Castration Methods

Many techniques are available for castrating males. The most common methods include banding, the use of an emasculator (crushing), and surgical castration (cutting). Banding is the removal of the testicles using an elastrator to place a rubber ring above the testicles, around the top of the scrotal sac (avoiding the rudimentary teats), essentially restricting blood supply and allowing the scrotum with testicles to die and fall off in a few days/weeks (Figure 2). This method is one of the easiest available to producers, and although there is temporary pain, it subsides within the first few hours.

Castration can also be accomplished by using a Burdizzo emasculator. This tool works by crushing the spermatic cord (which supplies blood to the testicles), cutting off the blood supply, allowing the testicles to die and fall off, basically. The procedure is done separately for each testicle, does not break the skin, and is very effective. Smaller emasculator tools are available for performing this technique in small ruminants.

Surgical castration uses a sharp knife or scalpel to remove the lower third of the scrotum and then remove both testicles. Because the cut is left open to allow drainage and natural healing, there is an increased risk of bacterial infection and fly infestation. Surgical castration has also been proven in research studies to be the most painful method of castration.

When to castrate is a decision that needs to be determined by each producer and their individual situation. Male sheep and goats should ideally be castrated within the first few weeks of age. Doing it early helps reduce stress and health problems. The ideal age to castrate is during the first 7 days after birth, avoiding the first hours immediately after birth to allow for adequate bonding with the dam and nursing. Castration can be performed later; however, a veterinarian should be consulted, as it may require

sedation or a local anesthetic to ensure animal welfare and safety. It is also crucial to remember that tetanus immunity is essential for all castration methods. Giving the tetanus vaccine at least 2 weeks before castration helps the animal build protection. If the mother wasn't vaccinated, the young lambs/kids may also need a tetanus antitoxin at the time of castration.

Some farmers worry that castrating male sheep and goats too early (before 3 months of age) causes urinary stones (also called urinary calculi). But research shows this is not true. Urinary calculi are mainly caused by poor nutrition, not early castration. Most cases occur when animals are fed diets with an incorrect mineral balance. To prevent urinary stones, ensure that you are feeding a diet with a calcium-to-phosphorus ratio of at least 2:1

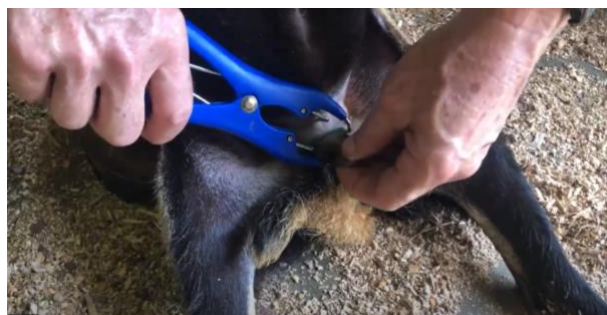


Figure 2. Castrating a ram lamb by banding (Reprinted with permission from Dahlia O'Brien, Virginia State University, 2019)

The QR code below (Figure 3) demonstrates how to properly band a ram lamb. The same procedure is used to band buck kids.



Figure 3. QR link to video – How to castrate in sheep and goats
(https://www.youtube.com/watch?v=V84x00xjlqk&list=PLHFHaKgV4IGSKZu6fz88caRD_oEGQAD4v&index=9)

Short-Scrotum

A method of castration that might be appealing to some small ruminant producers is rendering males with a

short scrotum. This method involves removing the scrotum while pushing and leaving the testes into the body cavity, preventing sperm development due to the inability of the testicles to thermoregulate. This method can also be accomplished by banding (Figure 4 below). In theory, this method keeps the animal infertile so they can be co-grazed with females without worry of unwanted pregnancies. Additionally, since short scrotum ram lambs continue to produce testosterone (secreted from the testicles), they retain the growth and carcass characteristics of intact males. However, research studies at Virginia State University demonstrated that even though the procedure depressed the presence of sperm in the ejaculate, the suppression was not complete, and caution is warranted in applying it towards co-grazing with females. The QR link below (Figure 5) demonstrates how to properly short-scrotum a ram, lamb, or buck kid.

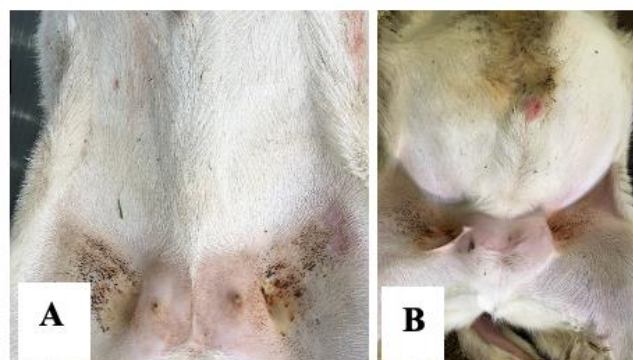


Figure 4. Castrated (A) vs. short-scrotummed (B) ram lamb, Virginia State University, 2019).



Figure 5. QR link to video – How to short scrotum a buck kid or ram lamb

(https://www.youtube.com/watch?v=FAIXXNrTU0U&list=PLHFHaKgV4IGSKZu6fz88caRD_oEGQAD4v&index=5)

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