



Small Ruminant Fact Sheet Series

Docking, castrating, and disbudding

by Susan Schoenian
Sheep and Goat Specialist
University of Maryland Cooperative Extension
sschoen@umd.edu

Docking, castrating, and disbudding are management practices routinely performed on sheep and goat farms. Each producer needs to decide whether or not to perform these practices, when to do them, and how to do them. Maintaining a high standard of animal welfare should be a consideration in all decisions related to docking, castrating, and disbudding.

Docking lambs

The tail protects the sheep's anus, vulva, and udder from weather extremes. Sheep lift their tail when they defecate and use their tail, to some extent, to scatter their feces. The ancestor of most modern sheep breeds (Mouflon) is a hair sheep with a short tail. Centuries of selection for wool production has resulted in sheep with long, woolly tails which usually require docking.

Docking prevents fecal matter from accumulating on the tail and hindquarters of sheep and lambs. Research has shown that tail docking greatly reduces fly strike (wool maggots), while having no ill effect on lamb mortality or performance. Docking also facilitates shearing. Not many shearers want to shear sheep with long tails. Packers also prefer docked lambs.

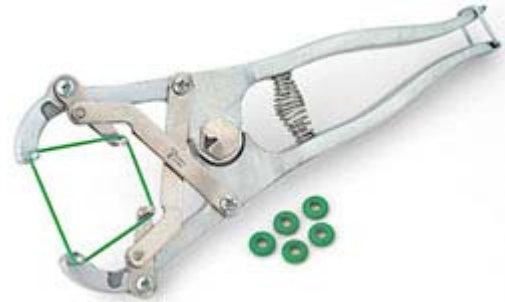
Because hair sheep lambs do not have long, woolly tails and/or wool on the underside of their tails, it is usually not necessary to dock their tails. Lambs from the Northern European short-tail breed group also do not require docking. Fat-tailed sheep are usually not docked. Some producers of woolled lambs do not dock their lambs or they only dock the ewe lambs. There are research efforts underway to breed sheep with short(er) tails to eliminate the need for docking.

Some markets pay less money for tailed lambs, since having a tail lowers dressing percentage, especially if dags are attached to the tail. Tail removal may require an additional worker on the kill floor. On the other hand, ethnic buyers of lambs often prefer undocked lambs. For the Muslim Festival of Sacrifice, unblemished lambs are often preferred for slaughter. An unblemished lamb is one that has not been docked, castrated, or had its horns removed. According to a 2002 Animal Health Survey, 91.7 percent of U.S. lambs are docked.

Banding tails

The simplest and most common method of tail docking is to apply a rubber ring (band) to the tail using an elastrator tool. Banding is a bloodless method of tail docking. The band cuts off the blood supply to the tail, and the tail falls off in 7 to 10 days. Some producers cut the "dead" tail off before it falls off.

Docking by banding is painful to the lamb. Lambs should be at least 24 hours old before bands are applied, and bands should only be applied during the lamb's first week of life. In fact, there is a law in the United Kingdom that restricts banding to the first week of a lamb's life. If it is practical, the use of a local anesthetic, such as lidocaine, can be used to reduce the pain felt by the lamb.



When the elastrator technique is used, it is very important that the lamb be protected against tetanus, since the band creates an anaerobic environment that is conducive to the tetanus organism establishing itself in the tissue. If the lamb's dam was not vaccinated at least two weeks prior to lambing or her vaccination status is unknown, the tetanus anti-toxin should be administered to the lamb at the time of banding. The anti-toxin provides immediate short-term immunity whereas the tetanus toxoid, while longer lasting, takes 10 days to 2 weeks to elicit an immune response.

Other methods of tail docking

An electric docking iron cuts and cauterizes the tail simultaneously and is probably the most humane method of tail docking. It can be used on older lambs. An emasculator can be used for docking. An emasculator has both a cutting and crushing mechanism. The crushing mechanism seals the blood vessels on the tail remaining on the lamb, while the cutting edge effectively removes the tail. The emasculator should be left on the tail for approximately 30 seconds to help prevent bleeding.

A Burdizzo is similar to the emasculator except it does not have a cutting mechanism. A knife must be used to cut off the tail (inside the Burdizzo). A "baby" (9 in.) burdizzo should be used for lambs. Tails can also be cut off using a knife; however, this technique is not recommended because it can cause excessive bleeding.

How long should the dock (tail stub) be left?

There is considerable disagreement with regards to how long the docked tail should be. In the United Kingdom, it is a law that the tail stub (dock) be left long enough to cover the ewe's vulva and ram's anus. Most other countries follow similar practices.

The American Veterinary Medical Association, American Association of Small Ruminant Practitioners, and American Sheep Industry Association all agree that tails should be removed no shorter than the distal end of the caudal tail fold. Tails docked shorter than this may result in an increased incidence of rectal prolapses among lambs fed concentrate diets. This is because short-tail docking damages the muscles and nerves used by the lamb's anus.

Short tail docking may also contribute to the incidence of vaginal prolapses, though there is no research data to support this claim. However, New Zealand researchers found that short-docked ewes suffered higher rates of carcinoma of the vulva.

All lambs should be docked by the time they are 2 weeks old, regardless of the method used. Older lambs and mature sheep should be docked by a veterinarian using general anesthesia. Though banded lambs are most vulnerable, immunity from tetanus is recommended for all docking methods.

Castration of ram lambs and buck kids

The decision to castrate ram lambs and buck kids should be based on the management preferences of the producer and the demands of the market place. Ram lambs grow faster than ewe and wether lambs and when ram lambs are marketed at a young age (less than 5-6 months), the market place usually does not discriminate in price. Buck kids grow faster than wether kids until they reach sexual maturity.

Ethnic buyers usually prefer intact males and may pay a premium price for them. Rams and bucks are preferred for the Muslim Festival of Sacrifice. It is not necessary to castrate ram lambs for the freezer (or locker) trade, since there is no difference in the taste or tenderness of meat from a young ram lamb versus a wether or ewe lamb. Older rams may have a *slight* taste difference. Some markets prefer older intact male goats, which tend to have a stronger taste.

On the other hand, wethers are easier to manage and eliminate the chances of early and/or unwanted pregnancies. When males are kept intact, it is necessary to separate them from females when they are approximately 3 months old. If this cannot be done, males should be castrated.

Males sold for grazing or as pets should be castrated since they will be easier to manage. Older males are more difficult to skin. For this reason, it is recommended that ram lambs be castrated if they are not marketed at a young age (less than 6 months). According to a 2002 Animal Health Survey, 77.4 percent of ram lambs are castrated. The average age of castration is 22.3 days.

Castration by banding

As with tail docking, there are a number of techniques that can be used to castrate ram lambs and buck kids. An elastrator band can be placed around the neck of the scrotum, with care taken not to place the band over the rudimentary teats. The scrotum will shrivel up and fall off in two to three weeks. As with docking, the "dead" scrotum may be removed after a few days.

Both testicles must be below the placement of the band. If one testicle is missed, it will be retained in the belly cavity, resulting in a "bucky" lamb or kid. A short-scrotum is a male whose testicles are pushed above the band. There is some evidence that short-scrotum lambs grow as fast as ram lambs and produce heavier carcasses. They have also been used as "teaser" rams.

Castration by banding is painful and should be done at a young age (1 to 7 days). Some experts advocate the use of lidocaine to reduce the pain felt by the animal. As with banding tails, lambs and kids should be protected against tetanus though either colostral immunity or use of the tetanus anti-toxin at the time of castration.

Surgical castration of ram lambs and buck kids

Testicles may be surgically removed. With surgical castration, a sharp knife or preferably a scalpel is used to remove the bottom one-third of the scrotal sac. The testicles are removed and the wound is allowed to drain and heal naturally. It is essential that proper aseptic technique be used when the surgical method of castration is used.

According to research conducted in Great Britain, this technique is the most painful to lambs because it results in higher levels of cortisol as compared to the banding method. It also has

the greatest potential for infection and fly infestation. It is best performed before or after fly season

Other methods of castration for lambs and kids

A Burdizzo emasculatome is a tool that is used to crush the spermatic cord, which crushes the blood vessels, thus depriving the testicles of blood supply and causing them to shrivel up and die. The cattle-size Burdizzo should not be used to castrate lambs and kids. Each cord should be crushed separately.

There is an "All-in-One" tool that can be used to perform surgical castrations. The teeth of the All-in-One tool are used to grab the testicles after cutting off the bottom one third of the scrotum with the scissors portion of the tool.

Males should be castrated by the time they are six weeks of age, regardless of the method used. Since males castrated during their first month of age are more prone to urinary calculi, some veterinarians advocate delaying castration until after they reach puberty. If this is done, castration should be performed by a veterinarian using general anesthesia.

In the United Kingdom, veterinarians must perform all castrations in lambs over 3 months of age. Though banded lambs are most vulnerable, immunity from tetanus is recommended for all castration methods.

Disbudding (removing the horn buds of baby goats)

by Jeanne Dietz-Band and Susan Schoenian

Most goats are born with horns, which will begin growing shortly after birth. Occasionally naturally polled (hornless) goats will be born. Breeding two polled goats may result in the birth of a hermaphrodite (infertile goat with both sex organs).

The purpose of disbudding is to destroy the horn cells and prevent the horns from growing. Disbudding is not the same as dehorning. Dehorning is much more involved and should be done by a large animal veterinarian.

It is common to disbud dairy goats and other goats that will be handled frequently. Horned goats that are kept in close quarters can cause injury to people, each other, and other livestock. They often get their heads stuck in feeders and fences. Some shows require market goats to be disbudded.

Meat goats are usually not disbudded. They tend to require less handling and feeding and their horns serve as a natural cooling mechanism. The decision to disbud goats is often a matter of personal preference.



The most common and recommended method of disbudding is with an electric disbudding iron. This is a circular iron that is placed over each horn bud. The circular tip of the iron

should be about ¾ of an inch in diameter. The iron is left over the horn buds for approximately 8 to 15 seconds.

Closely follow the manufacturer's recommendations that came with the iron to be used. Wattage varies somewhat between different pieces of disbudding equipment and the amount of heat produced will determine the length of time for the procedure. Do not use an extension cord when plugging the disbudding iron into the power supply, that will compromise the iron's ability to reach optimal temperature.

The areas over and around the horn bud should be clipped prior to the iron being placed on the kid's head. Allow the heated side to cool well before putting the iron back to the kid's head to do the other side. You will see a "copper-colored" ring around the horn bud if the procedure went as it should.

The kid is usually placed in a holding box for the procedure, but a second person is needed to steady the head during the procedure. Afterwards, it is a good idea to put an anesthetic on the horn buds.

Kids should be disbudded as soon after birth as possible, usually 3 to 7 days. This varies by breed and goats. You can disbud as soon as the horn buds can be distinguished.

Inexperienced producers should seek the assistance of an experienced producer or large animal veterinarian when disbudding for the first time.

MARYLAND SMALL RUMINANT PROGRAM

.....
(301) 432-2767 x343 • FAX (301) 432-4089 • SSCHOEN@UMD.EDU

.....
18330 KEEDYSVILLE ROAD • KEEDYSVILLE, MD 21756

.....
LOCAL GOVERNMENTS • U.S. DEPARTMENT OF AGRICULTURE COOPERATING

.....
EQUAL OPPORTUNITY PROGRAMS