



INDUSTRY GUIDELINES FOR CARRYING OUT SPECIFIED FARM PROCEDURES ON WOOL SHEEP BREEDS

PREAMBLE

We, as an industry, would like to express our appreciation to the Livestock Welfare Coordinating Committee (LWCC) for evaluating this Guideline document and making input to further develop it as fit for purpose.

The LWCC (established in 1978) is an independent entity comprised of multiple stakeholders dedicated to protecting the welfare of livestock. After reviews and revisions, the Guideline document that follows was accepted and endorsed at the 185th meeting of the LWCC held on 19th August 2022, as an effective set of measures to assist the wool industry to ensure that the procedures of castration and tail docking are carried out in terms of current best practice from the perspective of both welfare and practical application.

The official LWCC support for the document acknowledges the wool industry's commitment to welfare issues that affect the very foundation of the wool value chain. The LWCC also approved the association of their logo with the Guideline document as an indication of this official recognition.

In addition to wide distribution within the industry, to both commercial and communal stakeholders, the guideline will be published on the LWCC website (lwcc.org.za) together with other approved guidelines and position statements.

As this is a dynamic document it will be completely reviewed at least once every three years. Should peer reviewed research results be published within that time frame necessitating immediate updating this will be done.



INTRODUCTION

This document serves as an Industry Guideline for Wool Sheep Producers on how tail docking and castration should be done in a practical, safe, and economic manner while always optimizing animal welfare.

A clear guideline such as this demonstrates the industry's commitment to promoting animal welfare.

This document is intended to be used as a guideline by Cape Wools South Africa (CWSA), National Wool Growers Association (NWGA) Advisors and Wool Sheep Producers and for possible inclusion in a certification system. It will be available to CWSA and the NWGA as a point of reference for on-farm training, monitoring, and evaluation as well as part of a Welfare Certification System which can be used to reassure the public and the industry that wool farming is pursued in a humane and responsible manner.

It is foreseen that these guidelines may be translated into other languages for greater utility and acceptance.

Two Position Statements of the Livestock Welfare Co-ordinating Committee (LWCC) - “Statement on the Evaluation of the Use of Harmful Interventions and Procedures in Livestock” which evaluates the acceptability or otherwise of procedures and “Statement on the Justification for Using Certain Painful Procedures in South African Livestock” which sets out the considerations used in arriving at a decision that certain painful procedures, including castration and tail docking in wool sheep, are currently acceptable - were referenced as important source documents for this guideline.

Finally, this guideline is not in any way cast in stone and may change dynamically as procedures, methods and welfare modalities evolve. Reference is made, under both castration and tail docking, to the advent of new modalities. These will be assessed at the time and included in the guideline with appropriate comments.

1. CASTRATION AND TAIL DOCKING

Castration and Tail Docking are two farm procedures that involve the infliction of some pain and carry some risk. These procedures are usually done without anesthesia, and this has drawn some justified criticism from animal welfare entities as well as from the public. It is therefore clear that if these procedures are to be undertaken, they must be justifiable and done in the correct way.

Both Castration and Tail Docking are justifiable, provided that acceptable methods are used, and the appropriate precautions are taken to minimize pain and mitigate risks. Every farm procedure that involves animal management must be evaluated with these factors in mind.

2. CASTRATION

2.1 Justification

The first principle of Livestock Welfare is that if a given farm procedure can cause harm, discomfort or pain, it should preferably be avoided or applied only after a careful risk benefit analysis.

In the case of castration, complete avoidance may be possible in breeds and farming situations where the ram lambs are to be marketed before or soon after puberty.

If ram lambs are to be kept after sexual maturity, then castration can be justified based on preventing unsuitable rams from mating as well as preventing the birth of out-of-season lambs, which in itself can become an animal welfare issue.

2.2 Training, Supervision, Risk mitigation and Follow-up

For any approved method of castration, there must be adequate training and supervision of operators who must be aware of both the potential risks and pain profile of each method. This will enable them to appreciate why a specific method is recommended as best practice as well as how the risks and pain factor can be minimized.

Following castration, the lambs must be checked at least daily for about a week for any untoward consequences that may need attention.

2.3 Timing

Age is the most important consideration limiting the application of castration.

Lambs should be at least 3 days old, by which time bonding with their mothers is usually good.

Although lambs can be castrated from 3 days of age it is recommended to be done when lambs are 1 – 2 weeks old since they have then had time to stabilize after the birthing process. This is not always possible to arrange, especially with large flocks, so castration may be postponed until the great majority of the lambs have been born. This would be about 35 – 42 days after the first lambs were born. If the lambing season is longer, it is strongly recommended to do the castrations in 2 or more batches to avoid lambs older than 42 days being castrated.

During periods of climatic stress like heatwaves or cold snaps, castration should be postponed.

2.4 Animal Type

All wool breeds or crosses may be castrated.

2.5 Pain Control

It is strongly recommended that, where practically feasible, pain control both in the form of local anaesthesia and post operative pain relief be considered in any animal castrated after 2 weeks of age. This must be done using registered products and strictly according to legal requirements.

2.6 Methods of Castration

It is to be noted that, although for completeness's sake, all the methods of castration are listed this is only to allow for ease of reference. Embedded and highlighted in the text are indications of acceptability for each of the methods.

What follows is a summary of the above for emphasis.

- Emasculator. "Burdizzo" Castration
Strongly recommended. Because there are so few risks, done correctly, this is currently regarded as best practice and the best method of castration available to commercial farmers.
- Elastrator / Rekkie
Qualified recommendation. In experienced hands an acceptable method but not regarded as best practice due to a greater risk profile than A.
- High Castration
Not recommended. This method is potentially ineffective. There are vastly more effective methods available.
- Open Wound Methods
Must not be used under any circumstances. These methods are extremely risky from an infection and bleeding point of view as well as indefensible from an ethical and welfare point of view.

2.6.1 Emasculator “Burdizzo” Castration:

The word “Burdizzo” is added here as this form of castration is commonly referred to by referencing the most common tradename of the instrument used.

Because there are so few risks, done correctly, this is currently regarded as the best method of castration available to commercial farmers.

Equipment: The emasculator (Burdizzo) is a small hand-held instrument that comes in two models. A small model suitable for lambs and the larger model used for calves which should not be used for sheep. The emasculator must always be stored in the ‘open’ position when it is not in use to preserve its effectiveness.

Method: The lamb must be held by an assistant in the sitting position with the hind legs extended towards the chest, and the scrotum and testes exposed to the operator, who will clamp each spermatic cord separately above the testis, at different levels on each side so that there is some unclamped scrotal skin in between to retain blood flow and prevent the entire scrotum from dying off and sloughing thus creating an open wound. This would make the lamb more prone to infection and other complications after the emasculation.

The testes must be pulled away from the body so that only the spermatic cord above the testis is clamped. Once the operator is certain that the position is correct, the emasculator can be clamped for 5 seconds, then the procedure is repeated for the other side testis. The apparatus must be fully clamped each time – a soft click will be heard when it is fully engaged. The operator should not be hasty when castrating – this can lead to mistakes. If it has been done correctly, a depression in the skin and spermatic cord can be felt. Because the blood supply to the testes has been interrupted, they will shrivel and become inactive over time.

2.6.2 Elastrator

Also known as the rubber ring or “rekkie” method.

Equipment: Commercially available applicator designed for the castration of lambs, used to stretch elastic rings to enable their correct placement.

Method: It is recommended that the rubber rings should be soaked in a registered skin anti-septic solution before application to reduce the risk of contamination by dangerous organisms once the scrotum and testes begins to die and slough off. The ring must be applied by stretching it, using the applicator, and sliding the band into the correct position over the scrotum. Once correctly positioned the ring is placed around the entire circumference of the scrotum above the testes by relaxing the applicator and rolling the rubber band off onto the skin. The tightness of the elastic ring cuts off the blood supply to both testes and to the scrotal skin, causing it all to die and eventually to fall off. There is a risk of infection, especially tetanus, and therefore vaccination of the ewes against tetanus 6 weeks before lambing is regarded as **an essential precaution** to protect the lambs as they will get antibodies through the ewes’ colostrum after birth.

This should not be done in kraals or similar facilities due to the higher risk of contamination to be found there.

2.6.3 High Castration

This is a variation of the Elastrator method B, the difference being that the testes are first pushed back as far as possible towards the body, then the rubber ring is placed over the scrotum as high as possible **below** the testes. The purpose is to keep the testes pressed against the body wall where they will develop at too high a temperature as the lamb grows preventing the production of viable sperm. Note the scrotal skin below the band will still die and slough off.

While the method is acceptable from an animal welfare perspective it is not recommended since some of the lambs may remain fertile.

2.6.4 Open wound methods

There are several variations of this approach which requires the scrotum to be cut by a sharp blade exposing the testis. Most often, the testes are then pulled until the cord breaks, or alternatively the cord is debrided (scraped) bluntly until it breaks. In either case the aim is to reduce or prevent bleeding. Another variation is to cut off the tip of the epididymis of the testis.

Using a sharp blade to simply cut off the cords of the testes is dangerous since it leads to severe bleeding.

The risk of infection and bleeding resulting from these open methods makes them potentially hazardous and therefore these methods are not recommended.

2.6.5 Other methods

Before any other methods are advocated, they will be thoroughly assessed by competent bodies whilst being considered for approval.

3. TAIL DOCKING

3.1 Justification

The first principle of Livestock Welfare is that if a given farm procedure can cause harm, discomfort or pain, it should preferably be avoided or applied only after a careful risk benefit analysis.

Tail docking of sheep is justified to prevent tail and perineal soiling by soft feces or urine which can lead to blowfly maggot strike (infestation) that will cause severe wounds and death if left untreated. This is a particular problem of wool sheep in wet weather, especially in the summer months.

Since most wool sheep are raised extensively it is unrealistic to rely on other methods of blowfly control. For example, reliance on chemical control causes further problems including the development of drug resistance in blowflies as well as unwanted drug residues in wool fleeces.

Tail docking of wool sheep is therefore recommended in conditions where blowfly infestation is a problem, since the pain involved is much less than the terrible effects of blowfly maggot infestation.

In some areas it may be possible to farm with undocked wool sheep.

Attempts at breeding short-tailed sheep have been unsuccessful since this has been genetically linked to deleterious outcomes and therefore is not recommended with current breeding technology.

3.2 Training, Supervision, Risk mitigation and Follow-up

For any approved method of tail docking, there must be adequate training and supervision of operators who must be aware of both the potential risks and pain profile of each method. This will enable them to appreciate why a specific method is recommended as best practice as well as how the risks and pain factor can be minimized.

Lambs must be checked at least daily for a week after docking for any untoward signs, and appropriate action taken.

3.3 Tail Length

The length at which the tail is docked is a crucial issue. It has been conclusively shown that tails cut too short make sheep susceptible to rectal prolapse as well as skin cancer of the bare exposed skin around the anus and vulva. In addition, very short tails can lead to ewes not squatting when they urinate, therefore contaminating the wool around the perineum and in this way again predisposing the animal to blowfly maggot strike. Furthermore, docking tails too long does not help to prevent fly strike.

The correct length, established by scientific evaluation, is a tail that just covers the anus and vulva in ewes and the anus in rams. This can be quickly and practically measured by pulling the tail of lambs down to determine the required length, or alternately establishing where the small skin folds that can be seen on the lower hairless surface of the tail end. Although the docking should ideally be done at the joint between the vertebrae of the tail this point can be very difficult to pinpoint in young animals, when this procedure must be done, and can slow the process down, especially with large flocks under practical farming conditions.

3.4 Animal Type

The practice of tail docking in sheep should be limited to wool breeds that are susceptible to blowfly strike. In other breeds it is sometimes carried out because it is customary or even a breed standard, but tail docking cannot be recommended on welfare grounds in these circumstances.

3.5 Timing

Tail docking should preferably be done in the early morning and in the cooler months (when possible), when blood supply to the tail is lower. Because of contamination, wet conditions should be avoided.

Although lambs can be tail docked from 3 days of age it is recommended to be done when lambs are 1 – 2 weeks old since they have then had time to stabilize after the birthing process. This is not always possible to arrange, especially with large flocks, so tail docking may be postponed until the great majority of the lambs have been born. This would be about 35 – 42 days after the first lambs were born. If the lambing season is longer, it is strongly recommended to do the tail dockings in 2 or more batches to avoid lambs older than 42 days being tail docked.

3.6 Pain Control

It is strongly recommended that, where practically feasible, pain control both in the form of local anaesthesia and post operative pain relief be considered in any animal tail docked after 2 weeks of age. This must be done using registered products and strictly according to legal requirements.

3.7 Methods of Tail Docking

It is to be noted that, although for completeness's sake all the methods of tail docking are listed this is only to allow for ease of reference. Embedded and highlighted in the text are indications of acceptability for each of the methods.

What follows is a summary of the above for emphasis.

- Hot Iron (Cautery)
Strongly recommended. This method is the safest way to dock tails and is regarded as best practice.
- Elastrator
Qualified recommendation. This method is regarded as acceptable though not best practice. Not as safe as the hot iron / cautery method due to a greater likelihood of complications.
- Emasculator and Cutting
Not recommended due to a high incidence of complications.
- Open knife
Must not be used under any circumstances. This method is extremely risky from an infection and bleeding point of view as well as indefensible from an ethical and welfare point of view.

For all methods, using kraals or other very contaminated areas should be avoided since this increases the likelihood of infection of the wounds, especially with tetanus.

3.7.1 Hot Iron (Cautery)

Because this method is the safest way to dock tails, it is regarded as best practice and strongly recommended.

The principle behind this method is that if a sharpened piece of metal is heated sufficiently, and then applied to the tail it will simultaneously cut, cauterize (prevent bleeding) and sterilize the wound. For larger flocks there is commercial equipment that operates by a gas flame heating a metal plate. For smaller flocks, hand-held chisel-like blades can be made with handles, and these can be placed in a fire to heat to a suitable temperature.

The right temperature can be judged by applying the instrument to wood or cardboard – if it does not smoke it is too cool; if it causes a flame, it is too hot. It is just right when the wood or cardboard smokes with contact. The hot “blade” must be applied to the tail from the underneath surface then directed toward the top severing the tail. It is important to start from underneath as this is where the arteries and veins run which will then be effectively cauterized to prevent bleeding. If done correctly the blade will cut through the tail quickly with minimal bleeding. A shield between the tail and the body of the lamb will prevent inadvertent burns on the body.

3.7.2 Elastrator

Although the applicator for stretching the rings was developed for castration, it is also used for tail docking. All the precautions and recommendations listed under castration must be observed. A few days after application of the ring the tail below the ring, which will have started necrosing (dying), can be cut off. This will reduce the risk of especially tetanus developing. **With these provisions, the method can be regarded as acceptable.**

It is however recommended that as with castration vaccination of the ewes against tetanus 6 weeks before lambing is regarded as **an essential precaution** to protect the lambs as they will get antibodies through the ewes' colostrum after birth.

3.7.3 Emasculator and Cutting

The same instrument (Burdizzo) used for castration may be used to dock lamb tails if the point of crushing is through a joint between two vertebrae in the tail. The arteries and veins are crushed, resulting in little or no bleeding. The tail is then cut off beyond where the emasculator has been applied. Avoid doing this over the bony body of a tail vertebra since this will crush the bone and make infection and slow healing more likely.

This will be a more difficult and time-consuming procedure due to the need to locate a joint between the vertebrae of the tail. In addition, increased risks of complication result in this method **not being recommended.**

3.7.4 Open Knife

This method was used in the past to simply cut off lamb tails with a knife. **It is not recommended** because it causes excessive bleeding, can lead to infection which can spread into the spine as well as blowfly strike.

This method must therefore be avoided.

3.7.5 Other methods

Before any other methods are advocated, they will be thoroughly assessed by competent bodies whilst being considered for approval.

4. ACKNOWLEDGEMENTS

Cape Wools South Africa and the National Wool Growers Association acknowledge with appreciation the efforts made by Professor Gareth Bath for his role in the drafting of this document as well as input received from various interested and affected parties including members of the Livestock Welfare Coordinating Committee.

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