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AWC Review of the castration and tail docking of lambs

1. INTRODUCTION

It is perhaps an opportune time to review the UK approach to the tail docking and castration of lambs. Animal welfare is a priority shared by producers and society as a whole; however increasingly demanding market specifications, and now historical regulatory standards which have underpinned lamb welfare can both unintentionally constrain changes to rearing systems, at a time when new techniques and science have the potential to open up welfare positive approaches.

Ruminant Health & Welfare (RH&W) therefore welcome the opportunity to contribute to the AWC Consultation. [About Ruminant Health & Welfare - Ruminant Health & Welfare \(ruminanthw.org.uk\)](https://www.ruminanthw.org.uk)

2. CASTRATION AND TAIL-DOCKING OF LAMBS

Why are these procedures used? Are there circumstances where these procedures are not necessary?

Both castration and tail-docking are traditional shepherding practices which have been implemented at a range of levels to reflect regional, system and breed differences. In some cases, flock systems have developed where either one or both of these interventions are not routinely used. Both practices however have been widely accepted as delivering welfare benefits in many flocks.

- **Tail-docking**

The direct effect of tail-docking is seen to reduce the risk of faecal contamination of the tail, crutch and the soiling of hind quarter wool. The aim to improve basic hygiene and fleece quality, to ease management prior to clipping and significantly reduce the risk of fly strike. Fly strike was identified as one of the top five health and welfare conditions of sheep by the RH&W grass-roots survey 2020 [Cattle & Sheep Health & Welfare Survey - Ruminant Health & Welfare \(ruminanthw.org.uk\)](https://www.ruminanthw.org.uk)

There are a range of risk factors which determine the level of faecal contamination of the tail, hindquarters and the potential for fly strike incidents. Pasture type, pasture management, micro-climate, parasite control, and genetics may all contribute to risk. Traditional hill sheep systems tend to fit a low risk flock profile. The longer tails of hill sheep breeds reflect that lower risk status.

- **Castration**

The direct effect of castration is to avoid seasonal sexual behaviour and the potential risk of unplanned or inappropriate pregnancies and the associated welfare risks. The aim to ease the management of male lambs and hogs and to avoid the production losses linked to tupping behaviour.

The management of the genetics which are used during the planned tupping period and eating quality and market access of late season male lambs and hogs are also considerations.

3. ARE THESE PROCEDURES REQUIRED?

Adopting the routine implementation of tail-docking and / or castration should reflect an identified risk to the individual flock.

RH&W believes that the risk profile of individual flocks should be assessed taking account of the environment, genetics, lamb rearing system and planned marketing period, including seasonal buyer specifications, to determine if tail docking and or castration deliver benefit.

That flock risk assessment should be used to determine if tail docking and / or castration of lambs is to be implemented routinely. Involving the farm veterinarian in reviewing the assessment as part of an annual health and welfare meeting has the potential to capture new thinking and add value to the decision making process. New flock management systems are developing and where tail docking or castration is implemented there may be opportunities in the near future to adopt techniques which manage pain.

Examples:

In simplistic terms, early lambing flocks which market prime lambs prior to the autumn period may avoid routine castration and gain both a welfare and performance dividend.

Flocks that market prime lambs into the winter period may find entire lambs are rejected by some buyers or are subject to a price deductions, reflecting eating quality concerns. These market standards may rule out the rearing of entire male lambs even if the other management challenges can be solved on farm.

Flocks that are low risk across the range of factors which can determine the level of faecal soiling and fly strike may avoid routine tail-docking. Some hill flocks may fall into this category.

Welfare risk assessments however tend to be more complex and must be at a whole system level. A range of system or business factors may also influence lamb management

Safeguarding flocks grazing away from routine handling points, on common land or unfenced grazing or on holdings where shepherding resources are under pressure may require a risk averse approach and mean that routine tail docking and castration are implemented.

Systems that market store lambs or wish to leave that option open as a marketing strategy, again may choose to implement both tail docking and castration as a routine to fit with buyer demand.

Objectively determining the cost benefit of both castration and tail docking is therefore a complex management decision; both fly strike incidents and unplanned pregnancies carry a high welfare cost and are potentially life threatening. When lambs are projected to move onto another holding for further rearing or breeding the potential buyer's view of those risks may also become a determining factor.

4. IMPACT AND COST OF TREATMENT

Fly strike (myiasis) treatment and preventative measures have a significant economic cost.

The early identification and treatment of myiasis requires skill and consumes man-hours. The routine prophylactic, sometimes repeated, use of dip or pour-on products to counter fly strike incidents or myiasis risk raise environmental, resistance and public health issues. System risk management therefore has a role in minimising these reactive interventions.

Tail docking and / or castration interventions will therefore be justified in many flocks. That on-going activity underlines the need for new approaches. To develop and adopt new pain management techniques. To explore both system change and genetics to counter the risk factors that trigger routine intervention.

5. TAIL DOCKING AND CASTRATION – IMPACT ON LAMBS

The present regulatory framework is designed to focus appropriate castration and tail-docking interventions within a defined age range to minimise the intensity and impact of pain.

Surgical and anaesthetic procedures are used in some circumstances when older lambs are castrated, however the rubber ring technique is the dominant approach within the sheep sector.

The application of rings to the scrotum is often followed by a period when the lamb is recumbent and discomfort can be observed. Tail docking through ring application tends to have a lower impact on behaviour and discomfort.

The use of rings in housed lambing systems fits well with a controlled environment. Any intervention can be avoided as the maternal bond is established. Colostrum intakes can be monitored and secured before the application of the castration and / or tail ring to young lambs. Individual penning can ensure miss-mothering is avoided during the post application period.

The use of rings in outdoor systems is more challenging; early ringing when lambs are easily caught can compromise colostrum or milk intakes. Lambs may be abandoned or become miss-mothered as they lie or become disorientated following the procedure. These risks rise when handling twin and triplet lambs, with castrated tup lambs at particular risk.

Ringing established active lambs reduces the risk of fracturing the maternal bond but makes handling or catching more difficult and time consuming during the lambing period when shepherds are under pressure. Extreme weather conditions escalate the pressure and risk of any intervention.

Clearly in hill and easycare systems, where ewes are often lambing at pasture or on the hill, avoiding handling young lambs is a positive. The gathering of lambs at a traditional marking time, post lambing, for castration and or tail docking supported by pain control can deliver a high welfare solution which also avoids stress in the critical early post-lambing period. Providing authorised castration and tail docking systems that incorporate pain management is therefore a priority.

6. INNOVATIVE SOLUTIONS

Including best practice in other countries and practices which fall outwith the present regulatory framework.

- **Sheep genetics – a myiasis risk management factor**

Sheep genetics are a significant factor in determining susceptibility to fly strike. At farm level flock-masters recognise both between breed and within breed variation of daggings rates, although other factors may also determine susceptibility to strike.

Genetic data suggests susceptibility to strike has a relatively high heritability with work out-with the UK identifying a simple genetic link to the trait. The genetic profile within the UK national flock may however be different.

Clearly a deeper understanding of the phenotypes which determine the susceptibility to fly strike and their genetic profile is required if animal breeding can be a component of fly strike control

With both the geographical range and prevalence of fly strike increasing in response to climate change, securing research funding to explore the viability of a genetic approach to risk reduction must be of value to the industry.

- **Pain control at castration and tail-docking**

Supporting routine castration and tail-docking with effective pain management has widespread support within the farming and veterinary community and was sign-posted as a key development target at the RH&W Welfare Workshop in June 2021 [Pain management is quickest route to improved](#)

[animal welfare - Ruminant Health & Welfare \(ruminanthw.org.uk\)](http://ruminanthw.org.uk). Effective pain control has the potential to open up the period when castration or tail docking procedures can take place allowing the timing of the intervention to be targeted to minimise stress.

The development of a combination ring applicator, that also delivers a pre-determined dose of anaesthetic from a cartridge reservoir, provides the sheep sector with a precision made pain management tool. An example of this is tool is Numnuts, developed in the UK with Australian funding. It is authorised for use in Australia and is scheduled to be available to the New Zealand industry. The tool can effectively deliver anaesthetic at castration and tail docking while simultaneously applying the ring.

Trial work monitored cortisol levels and behaviour post ring application and reported an over 60% reduction of the pain indicators compared to the control group.

Preliminary authorisation trials for the UK started in 2020 and although no official trials took place in 2021 the VMD were open to the use of the cascade to secure anaesthetic and allow farm-based case studies to take place in volunteer flocks to explore the performance of the tool under farm conditions.

Reports from Scottish farms and vets involved in the case studies have been positive.

With Australian flocks having now had two seasons experience using a combination ring applicator there is a considerable field evidence bank to indicate performance standards and any potential adverse effects. An evidence bank which adds weight to the initial trial data which validated authorisation.

The combination ring applicator concept has created an effective pain management system for the castration and tail docking of lambs and marks a step change in lamb welfare standards. There is demand for this innovation to be available to flockmasters within the UK.

- **Vaccination**

It is possible to vaccinate animals so that puberty can be delayed. This would reduce the risk of ram taint as well as unwanted pregnancies. As the product can be given to animals a few months of age, it is possible to harness benefits of raising uncastrated lambs for a couple of months. Such a method would have significant welfare advantages over physical castration. However, the product is not licenced in sheep and we recommend further investigation of this option, including the possibility of licensing and on-farm pilot options.

7. CONCLUSION

The routine use of castration and /or tail docking can be reduced; however for many sheep systems these interventions will remain key risk management tools.

New and developing approaches to genetics, castration and tail docking can make the biggest gains to lamb life experience. Both the research and regulatory communities have a significant role in both developing and facilitating innovative high welfare solutions, however it is also crucial that consumers, retailers and farm assurance bodies are informed and aligned with the science. New welfare standards need the buy-in of society as a whole to progress on farm.

RH&W would welcome the opportunity to discuss this submission further if this would add further value.