



Rearing Entire Males

Introduction

Hybu Cig Cymru/Meat Promotion Wales (HCC) was established in April 2003 and is the strategic body for the promotion and development of the Welsh red meat industry. Its mission is to develop profitable and sustainable markets for the benefit of all stakeholders in the supply chain.

It brought together the red meat activities of three organisations, namely the Meat and Livestock Commission in Wales (MLC Cymru), Welsh Development Agency and Welsh Lamb and Beef Promotions Ltd. Each organisation was responsible for different aspects of red meat activity, which have now been integrated into HCC's work.

HCC is now the sole body for the promotion and development of red meat in Wales.

This booklet forms part of a series of publications produced by HCC's Industry Development Team.

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In this booklet we address an important aspect of sheep production and management and focus on the rearing of entire male lambs. Running male lambs without castration has production benefits, and can improve carcase quality, save labour and expenses, and improve welfare.

Commercial lamb producers have to achieve better conformation, leaner carcasses and increased growth rates from their lambs to meet market demands, maximise output and improve profitability. This can be achieved by leaving male lambs entire rather than castrating them. This strategy could be particularly suitable for early lambing flocks and lightweight lambs from the hills. This booklet brings together information on the management of entire male lambs across a range of systems to suit most farms and will assist producers in deciding the best practice for their own businesses.

Authors:

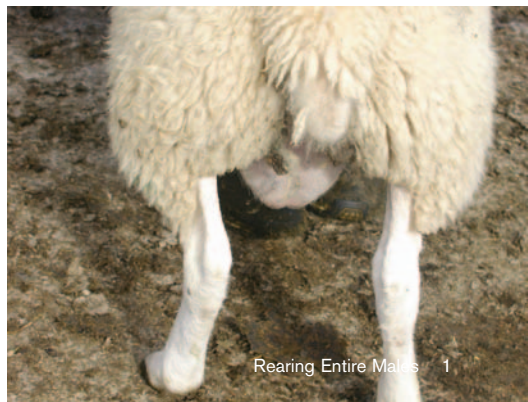
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Introduction

Trials have consistently shown that entire male lambs reach slaughter weight quicker, utilise feed more efficiently, and produce leaner carcasses with acceptable eating quality than castrated male lambs.

Leaving male lambs entire can therefore be justified on the basis of production efficiency as well as meat quality. Moreover, leaving lambs entire avoids the pain inevitably associated with all methods of castration. Management of entire male lambs needs to be well planned to ensure returns are maximised from the production of high quality carcasses aimed at an identified market outlet.

Trial work has shown that entire male lambs walk further on a daily basis in the company of females, compared to being separated from ewes, but their behaviour becomes more aggressive when they are separated from females. However, they still grow faster and produce larger carcasses with leaner meat than castrated or ewe lambs.



In most cases, taste panel testing and other meat quality evaluation has not detected any abnormal or unacceptable flavours, nor any major differences in tenderness or colour due to the sex of the lamb. Therefore, these results demonstrate that leaving male lambs entire does not perceptively reduce meat quality compared to castrated male lambs provided they are slaughtered at a suitable age and have been well managed.

Evidence shows that meat from entire males is perfectly acceptable to the consumer providing they are managed well and slaughtered at a sufficiently young age. Farmers can benefit not only in terms of faster growth, leaner meat and larger carcasses, but also because less time and work is involved castrating lambs, together with the bonus of less feed costs needed to produce lamb especially from early lambing systems.

Management Pointers

- Early lamb systems
- Hill lamb production
- Hill lamb production
- Improved growth rate & carcass conformation
- Less feed
- Welfare – less stress on lamb

Castration of male lambs

Avoiding castration means that labour and time costs can be reduced considerably especially at a time when skilled management requirements are at a premium.

Castration can cause pain that may discourage suckling, lowering the intake of colostrum at a crucial stage of the rearing process, this can lead to lowered disease resistance and less maternal attention. Castration of older lambs normally involves costly and time-consuming gathering, penning and sorting. There is also some risk of haemorrhaging, hernias and infection leading to pain, inflammation, peritonitis and the cost of veterinary treatment to correct any problems that occur as a result. Leaving male lambs entire will also help to avoid urinary calculi in intensively fed lambs, as the urethra is allowed to develop fully and therefore alleviate chances of blockage.



Figure 1: Comparison of daily liveweight gain from birth to slaughter (g/day) of entire and castrated male lambs

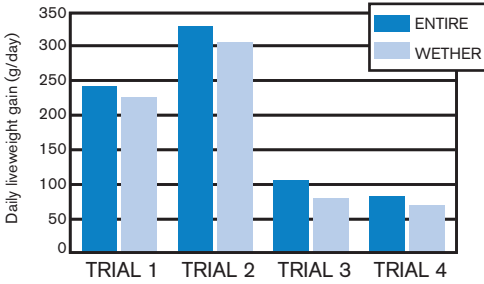


Figure 2: In each trial, the entire lambs had greater final liveweights

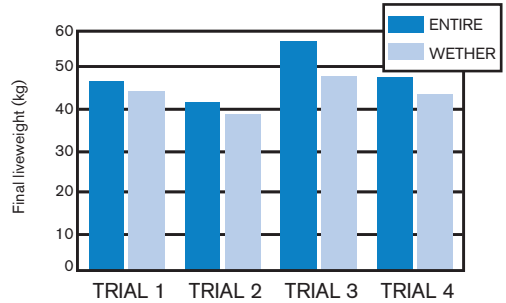


Figure 3: Entire lambs were consistently leaner than castrated lambs

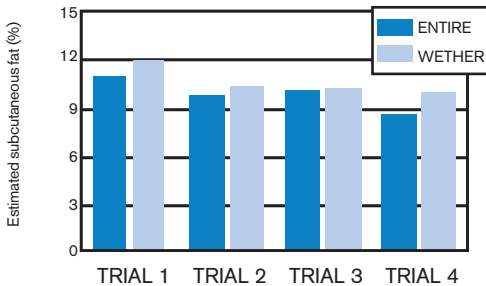
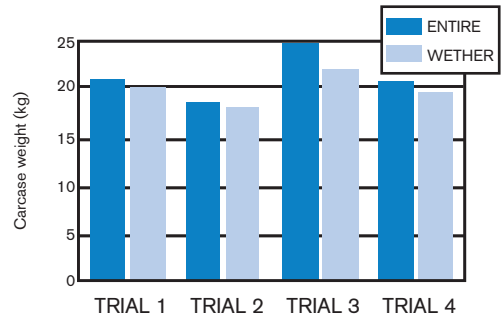


Figure 4: The carcass weight of entires was heavier in four separate trials



Non-castration allows males to grow more quickly (Figure 1 and Figure 2), they utilise feed more efficiently and finish with a leaner carcass (Figure 3). In practice, a typical early crossbred lamb can be expected to finish with an extra 2-3 kg liveweight, equating to at least a 1 to 1.5 kg carcass weight advantage (Figure 4) when it is finished entire rather than being castrated.

When applied to early lamb production systems this has the benefit of either producing more live weight, or reducing the time to slaughter by up to 10 days with the resultant saving in creep feed costs.

Advantages of entire male lambs

Management of spring born grass finished entire male lambs

The traditional method of finishing spring born lambs is outdoors on grass. Most single or twin-reared lowland lambs can be finished before puberty without concentrate feeding. Early maturing breeds, e.g. Hampshire Down, Dorset, Suffolk, Charollais, Vendéen or Texel cross, with good potential growth rates will benefit from being left entire. The male and female lambs can be run together as one flock from birth without problems.

Many spring lambing producers find it advantageous to leave single and good twins entire, especially for the first three weeks of lambing. This allows the entire lambs born early to be finished and sold, relieving pressure on stocking rates, generating cash flow and lowering fertiliser, handling and grazing costs. Depending on the prevailing prices, creep feed can be offered at grass to ensure lambs finish at good weights and hit the sale time when prices are at a premium.

Sourcing terminal sire rams with potential to sire fast growing lambs with high carcase quality is essential. The only accurate way to assess breeding potential is through the use of Estimated Breeding Values (EBVs), as it is not possible to select superior rams by eye alone. Contact MLC's Signet Breeding Services on 01908 844271 for a 'Ram Buyer's Guide to Selecting Terminal Sires'.

Lambs that grow well provide the flexibility of marketing at lighter weights when prices are good, or selling heavier lambs when prices are falling and still producing a high quality lamb for the market place.

Producers should plan and identify the market they are planning to fill and then take the necessary steps to meet the requirements of the system.

Management Pointers

- Plan market outlet
- Use correct breeds
- Source high growth sires
- Plan castration – some lambs or all
- Plan creep-feeding regime
- Regular worming to maximize growth



Regular drafting of finished lambs is necessary to prevent lambs from becoming over fat and failing to meet market specification. Clean grazing or regular worming is necessary to encourage maximum growth potential of the lambs.

Finishing Systems

Store lamb and later finishing systems with entire lambs

Specific management changes have to be planned if ram lambs are to be left entire on store systems involving later finishing. Lambs that cannot be finished early, e.g. triplets, slow maturing breeds and late born lambs or lambs which are being held to finish later for economic reasons can be finished on a variety of systems. **Male and female lambs must be separated either at weaning time or by 20 weeks of age, as it is around this time that puberty occurs.**


Separated entire male lambs can be safely reared to around one year of age, when the broad teeth start to erupt with no detriment to lamb meat quality or flavour. In trials, no taint was discovered in taste panel assessments on lambs kept up to 388 days of age fed on hay and concentrates or grass. **However, producers must confirm at an early stage that later finished male lambs are acceptable to the target outlet, as some buyers are reluctant to accept entire male lambs towards the end of the marketing season.** Later finishing lambs should be vaccinated against pasteurella and clostridial diseases.

Housing management

Housing

While indoor finishing entire ram lambs is technically feasible and widely practised for hill lambs and stores, cost effectiveness will depend on market conditions, cost of feeds and labour inputs.

There are management and production benefits from indoor finishing of entire male lambs. Feed intake can be closely monitored and growth rates maintained to meet target sale dates. The lambs should be housed in well-ventilated sheds and penned according to size to help prevent bullying. There should be no more than 40 lambs per pen, with each lamb requiring 0.8 m² of space. Ad-lib feeding is essential as it stops overeating and crowding at feed barriers thereby preventing acidosis and rumen bloat. Fresh clean water should be freely available at all times.



Lambs should be checked regularly from the age of 3 weeks for signs of Coccidiosis and treated appropriately at the first signs of scouring. Some creep feeds include a coccidiostat that will help prevent the disease. Lambs need to be eating around 300 to 450 g of creep feed a day for this to be effective.

As the housed lambs see humans more frequently, some individual rams may show aggression, initially through play behaviour towards people. **This is a safety issue that must not be ignored - stockpersons should be warned to watch out for a more-than-playful butt.**

Outdoor finishing

Finishing lambs outdoors in autumn and winter

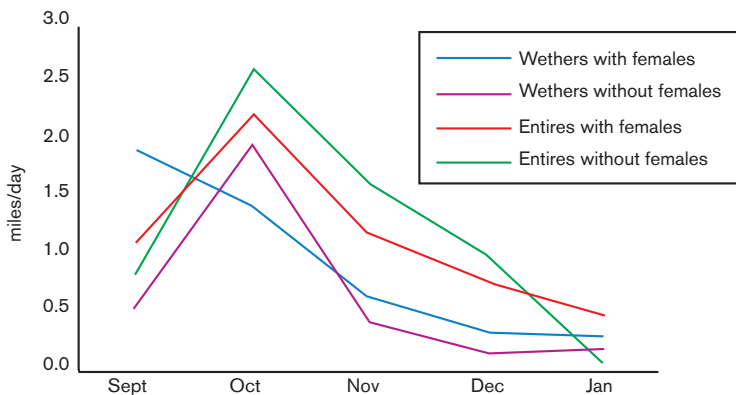
Entire male lambs remaining on pasture after weaning benefit from having no females in their surrounding environment. This means having at least one field between sexes. Trials have shown that ram lambs kept isolated from female sheep outdoors on grass had more tender meat than rams kept with female sheep, and their meat tended to be preferred overall. Isolation can be achieved by running ram lambs on silage aftermaths, stubble or break crops. Sound fences are essential.

Pasture can be supplemented with forage crops and/or concentrates through the winter. Mild winters may necessitate additional worming of the lambs kept outdoors. Vaccination against clostridial disease is required for slow finishing lambs.

Management where adjacent fields have to be used

If isolation cannot be achieved, it is possible to run ewe lambs and rams in adjacent fields. It was observed in trials that ewe lambs are more likely to jump fences to be with males than vice versa. Measurements using pedometers have shown that entire lambs kept near female sheep will walk further than other lambs (Figure 5). This may result in weight and condition loss. Supplementary trough feeding will ensure the entire lambs finish to schedule but at additional cost to the system.

Figure 5: Effect of sex and social environment on average mileage/day



Lambs should be handled regularly if they are to be retained through the late autumn and winter. As day length shortens ram lambs may lose condition from October and may require extra feeding. Pasture can be supplemented with forage crops and/or concentrates through the winter. Mild winters may necessitate additional worming of the lambs kept outdoors. Vaccination against clostridial diseases is generally required for all store finishing systems.

Hill flocks

Hill breeds of lamb can also be successfully finished entire. Separation of the sexes normally occurs at the autumn gather on the hills, as ewe lambs are generally retained as replacement stock. Where male lambs are destined for the European lamb outlets, leaving them entire is now normal practice on many hill farms in the UK. On hill farms with good grass quality, especially those with good fencing many producers have left the whole flock uncastrated in recent years. However, many hill farmers consider castration as essential, especially where there is difficulty in obtaining a clean gather.

The main requirement for finishing entire male hill lambs is to achieve weight and fat cover specifications. On poorer hill ground this can be difficult. A well-planned and organised system for finishing lambs should be in place to avoid lambs losing condition.

Management steps to take before adopting entire lamb production

- Plan well ahead. Identify market outlets and optimum sale time.
- Source rams with good growth and conformation using Estimated Breeding Values
- Check fences are sound.
- Identify paddocks for entire and female lambs after weaning.
- Assess the need for castration under the current situation. If lambs are all sold finished in under 6 months there is no need to castrate, but if some are kept longer, plan the management changes needed.
- Discuss with your buyer their requirements - find out how long they will accept ram lambs without deduction. Check prices and weight limits.
- Good grassland management is necessary to avoid checks in growth, as the finishing point for ram lambs is easily delayed around puberty.
- Select lambs on condition score and weight regularly to match market requirements.
- House lambs in batches of similar live weight.
- Ensure worming and Coccidiosis management programmes are in place.

Further information

Please contact HCC's Industry Development Team

Tel: 01970 625050 or email: enquiries@hccmpw.org.uk

For further information on this brochure or the work of HCC please visit

www.hccmpw.org.uk