

Factors limiting Lamb Growth and Production

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Whilst scanning and lambing percentages are parameters that are often referred to early in the flock year, just as important to profitability are later losses and the growth rates that lambs achieve.

Electronic tagging and weighing systems allow daily liveweight gains to be easily appreciated and subtler losses in production targets are more readily identified. Daily liveweight gains in lambs born to terminal sires should be approximately 250g-300g/day pre weaning and 150g/day post weaning. Roughly a quarter to one third of lambs should be finished by weaning. If you are not hitting these targets then involve your vet as money is being lost.

Lamb growth rates are down to three main factors: genetics, nutrition and disease. Genetics are important and set the potential. High EBV rams have been shown in lots of trials to leave lambs which grow faster and grade better than 'farmer' choices.

Whilst an obvious factor in lamb growth, **nutrition** is often overlooked in favour of more obscure causes. Lambs should be given preferential nutrition on a sheep unit to ensure targets are met.

Whilst numerous systems are available, the same principle applies - energy and protein quality and quantity need to be sufficient to sustain their daily needs and also growth. In addition, the food supplied should be available in a form that they are able to easily utilise, lambs need an energy dense diet hence a sward that has been allowed to get too long will not grow lambs to their potential.

Production limiting disease in lambs is common. The most frequently seen conditions associated with poor growth rate include:

- Gut worms
- Coccidiosis
- Selenium deficiency
- Cobalt deficiency
- Lameness
- Ectoparasites (scab, lice and fly strike)
- Chronic cases of joint ill etc
- Clostridial diseases

Whilst gut worms (parasitic gastroenteritis) are one of the most significant influences on sheep production, current strategies of worm control makes up a whole article in its own right. Young lambs have no immunity to worms, and increased worm egg production in ewes around



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lambing makes them more susceptible to disease. Unlike adult sheep, lambs are also susceptible to *Nematodirus battus* worms. The appropriate timing and choice of wormer is essential to control emerging resistance and disease. Each farm should have a plan tailored to its own needs.

Coccidiosis

Another parasite which has major impact on lamb growth by destroying the gut lining so the lamb cannot absorb nutrients. Infections are seen most often in intensive systems in lambs between 3-8 weeks, although older lambs may also be affected on heavily contaminated paddocks. It can cause sudden death as well as dull, tucked-up lambs with diarrhoea and dehydration. Lambs which survive can have reduced growth rates for weeks afterwards. If lambs are only exposed to a low grade level of cocci they will develop a good immunity. Monitor by regular FEC in conjunction with signs as some cocci lay eggs but cause no disease.

Fly strike

Spring and summer months can be massively debilitating to young lambs. Severe infestations can cause death



A worming programme will pay dividends as lambs grow and develop an appetite for grass as well as milk.



Protection from clostridial disease can be provided via ewes' colostrum, so ensure ewe vaccinations are up-to-date.

and milder cases varying degrees of growth disruption. Selecting products to protect the lambs before the threat from flies before it occurs is important, as is making sure the duration of action is long enough. If lambs are close to finishing, products with a shorter duration of action and meat withdrawal may be more appropriate.

Scab mites and lice

As well as the direct debilitation of skin disease caused by **scab mites and lice**, the itching behaviour disrupts feeding patterns and reduces feed intake. It is important that scab and lice infestations are differentiated between as the treatment for each is different.

Deficiencies

Both **selenium and cobalt deficiencies** are common causes of ill-thrift in growing lambs. These can be diagnosed by group blood sampling. Deficiencies can be corrected by appropriate supplementation. Indiscriminate mineral and trace element supplementation is at best wasteful, and at worst dangerous – over supplementation can cause further complications - such as death seen in Texel-type lambs provided with too much copper. It is important the correct trace element is given and the right

method of administration is employed. Ad-lib minerals are best avoided as you cannot guarantee each animal will receive adequate levels. Drenches, injections and boluses are available in a huge number of combinations with varying lengths of action – speak to your vet about the most appropriate product for your lambs.

Lameness

A major health issue for all ages of sheep. If your flock has a lameness incidence of over 4% it is a problem that needs further investigation. Lambs afflicted with scald, footrot or CODD (contagious ovine digital dermatitis) will not thrive as well as their contemporaries due to debilitation and disrupted feeding. Lameness will prevent lamb sales through the mart and can also prevent their transport to slaughter. It is therefore essential that an effective plan is in place for dealing with lameness issues. If greater than one in 25 sheep is lame then your current plan needs changing.

Diseases encountered early on in the life of the lamb can have ramifications for future development. Joint ill can result in irreversible joint damage and hinder subsequent growth. Navel ills and abdominal infections can result in a variety of problems including liver

damage and sudden deaths.

Ewes provide lambs with some immunity to a range of diseases they may encounter early in life through colostrum. Ewes should have received vaccination against the common **clostridial** diseases pre-lambing to protect the lambs from conditions like **pulpy kidney**. Pulpy kidney is commonly seen in growing lambs between one to two months, and usually affects the 'best' lambs in the group. Cases are seen as sudden deaths, and those lambs found alive invariably die due to massive toxin overload.

Whilst we cannot control lamb prices, by considering the points highlighted in this article, some of the detrimental factors influencing flock profitability can be managed effectively. □

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