



Animal Health & Welfare NI

Sheep Health

July Sheep Health

AHWNl Flock Health Focus: Thin Ewes at Weaning? Don't Underestimate the Impact of Hidden Disease

Many flocks will now be in the post-weaning stage of the production cycle. Attention will now be turning to lambs, with the best grazing often being reserved to maximise growth rates. However, it's important not to forget about the ewes during this period. Identifying thin ewes at weaning provides an opportunity to investigate the underlying cause and take action before the next breeding season.

Body Condition at Weaning- An Important Checkpoint

Weaning is an important time to check a ewe's body condition score (BCS). Any ewes with a BCS below 2.5 in lowland flocks, or below 2.0 in upland and hill flocks, will need time to regain condition before tupping. It can take around 6–8 weeks for a ewe to regain one body condition score on good-quality pasture, so this should not be left too late. Achieving the correct body condition at tupping can improve fertility by increasing ovulation rates. The period between weaning and tupping is often the ewe's best opportunity to regain condition. Once pregnant, much of her energy will be directed towards supporting foetal growth rather than rebuilding body reserves, and gaining condition becomes much more difficult as pasture quality declines through the winter.

Thin ewes are less likely to hold to pregnancy and generally will have a greater likelihood of producing singles rather than twins or triplets. They are also more susceptible to metabolic diseases such as twin lamb disease, produce lower quantities and quality of colostrum, have lighter lambs at birth and often make poorer mothers. Taking action now can therefore have a significant impact on next season's performance.

Target Body Condition Scores

	Lowland	Upland	Hill
Tupping	3.5	3.0	2.5
Scanning	3.0	2.5	2.0
Lambing	3.0	2.5	2.0
Weaning	2.5	2.0	2.0

How to Body Condition Score

Body condition scoring should always involve handling the ewe. Wool length, gut fill and breed differences can all make visual assessment unreliable.

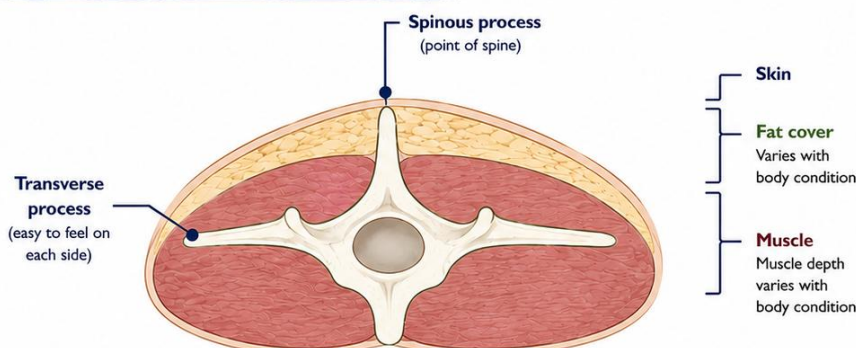
BCS is assessed by handling the ewe over and around the backbone in the loin area, just behind the last rib. Try to assess the ewe when she is standing freely rather than pressed tightly against another sheep.

Body Condition Score	Description
Condition Score 1	Spine and ribs can be easily felt and are sharp, fingers can be easily pressed between each rib. The loin is thin with no fat cover.
Condition Score 2	The spine is prominently felt but is smooth, the ribs are smooth and rounded, fingers can be pressed under. The loin is of moderate depth but has little fat cover.
Condition Score 3	The spine is smooth and rounded, and can only be felt with pressure. The ribs are smooth and well covered, with pressure required to feel the ends. The loin is full with moderate fat cover.
Condition Score 4	The spine is only detectable as a line, the ends of the ribs can't be felt. The loin is full and has a thick fat covering.
Condition Score 5	Neither the spine or the ribs can be felt with pressure.

BODY CONDITION SCORING (BCS)

What Are You Feeling?

CROSS SECTION OVER THE LOIN (LUMBAR AREA)

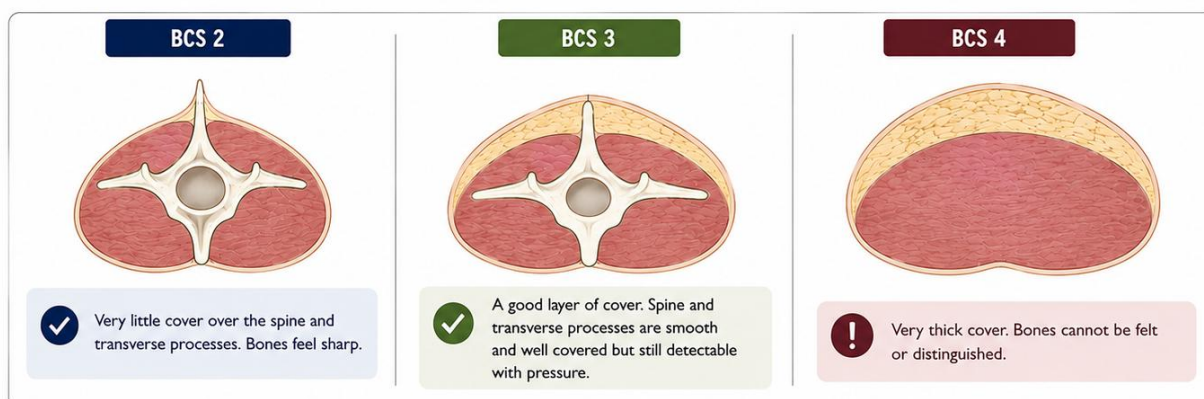


i HOW TO SCORE

Stand behind the sheep. Place your fingers either side of the spine. Feel for the spinous and transverse processes. Assess the amount of cover over them.



Assess a group of sheep regularly and score the same animals when possible.



Ewes with a BCS below 2.5 in lowland flocks, or below 2.0 in upland and hill flocks, should be separated from the rest of the group and given priority access to good grazing. This reduces competition for grass and allows thin ewes to regain condition while maintaining the condition of the remainder of the flock.

Monitoring the Thin Ewe Group

Bring the thin ewe group back in around 6–8 weeks later for repeat body condition scoring. If they have been managed well, they should have gained around one body condition score. Failure to regain condition despite good nutrition should prompt further investigation.

There can be many reasons why a ewe may not be gaining condition. Conducting a thorough investigation is essential to rule out disease possibilities.

- Check their teeth
- Look at feed quantity and quality
- Have they had issues with lameness recently? Check their feet.
- Have they had mastitis post-weaning?
- Could there be a parasite infection? Take dung samples for Faecal Egg Counts (FEC)- check for gastrointestinal nematodes, *Haemonchus contortus* or chronic liver fluke.

If these common causes have been investigated and ruled out, an underlying iceberg disease should be considered.

Could an Iceberg Disease Be to Blame?

Iceberg diseases are so named because the few sheep showing obvious clinical signs often represent only a small proportion of the infected animals within the flock. Many apparently healthy sheep may already be infected and contributing to the spread of disease before the problem becomes obvious.

For every ewe that looks visibly unwell, there may be many more infected sheep that appear normal. These diseases have a long incubation period (years), mainly affect adult ewes, spread silently within the flock and reduce productivity before obvious illness is seen.

Initial, subtle impacts may include reduced scanning percentage, increased barren ewes, lower lamb birth weights, reduced milk yield, higher cull rates and increased lamb mortality. By the time disease becomes noticeable, a significant proportion of the flock may already be affected.

One of the most common clinical features of several iceberg diseases is chronic weight loss. Affected ewes are often the last to come to the feed barrier, trough or gate, gradually lose body condition despite adequate nutrition and fail to thrive. The prevalence of these diseases has increased across the UK, and levels in Northern Ireland may be underestimated because routine testing is still relatively uncommon.

Good flock records can help identify patterns that suggest an iceberg disease may be present.

- Is there a high proportion of thin ewes failing to regain condition?
- Has your replacement rate increased?
- Has ewe mortality increased?
- Have there been unexplained deaths?
- Have barren rates increased or scanning percentages declined?

If any of these apply to your farm, there may be a chance that there is an iceberg disease infecting your flock.

Iceberg Disease Investigation

If you believe that an iceberg disease may be affecting your flock, there are a number of tests that can be carried out.

If you have a group of thin ewes that are going to be culled anyway, it can be worth getting a post mortem done on one or two. In the event of the sudden death of a ewe, ideally she should be sent for post mortem. The information that can be provided from this could be invaluable in gaining a better understanding of your flock's health status.

There are 5 iceberg diseases of concern. There is no cure or treatment for any of these and clinical disease inevitably leads to death. Control can only be achieved through testing and putting in place management practices that reduce risk. The infections are:

Maedi Visna (MV)- MV is a highly contagious virus that causes respiratory disease, chronic wasting and chronic mastitis.

Ovine Pulmonary Adenocarcinoma (OPA)- OPA is a contagious, fatal lung cancer of sheep caused by the Jaagsiekte sheep retrovirus (JSRV), which progressively impairs respiratory function by forming tumours and accumulating excess fluid in the airways.

Border Disease (BD)- BD is a contagious virus that primarily causes reproductive failures and congenital birth defects- such as neurological tremors and an excessively hairy coat- commonly referred to as 'hairy shaker' syndrome.

Caseous Lymphadenitis (CLA)- a chronic, contagious bacterial disease primarily affecting sheep and goats, characterised by the formation of thick, cheesy abscesses on internal and external lymph nodes.

Ovine Johne's Disease (OJD)- OJD is a bacterial infection caused by *Mycobacterium avium subspecies paratuberculosis* that progressively damages the intestines of adult sheep, leading to severe weight loss and eventual starvation despite a normal appetite.

Diagnostic tests are available for all of these diseases, although the test sensitivity may be low in some cases. Faecal samples can be used to investigate OJD and can also be tested for chronic liver fluke, *Haemonchus contortus* and other gastrointestinal parasites. Blood tests are available for MV, CLA and Border Disease, while blood or faecal testing may be appropriate for OJD depending on the stage of disease. Post-mortem examination remains the gold standard for diagnosing OPA, although transthoracic ultrasound performed by an experienced vet can also be useful.

When using blood tests, ideally 10-12 thin ewes from the group should be sampled.

Discuss these options with your private vet if you believe that iceberg diseases may be an issue in your flock.

What If Your Flock Has an Iceberg Disease?

If an iceberg disease is diagnosed in your flock, the first step is to discuss your options with your vet. These diseases are manageable within your flock but a proper control plan needs to be implemented.

All of these diseases are highly contagious, therefore good biosecurity practices and strict isolation of identified infected animals is essential.

If you identify infected animals, these should be isolated immediately from the rest of the flock in a separate airspace. Do not keep replacements from these animals as it is possible that they may be carriers of the disease even if symptoms are not yet showing. There is no treatment for these diseases, therefore in most cases culling these animals will be required as they will not be productive for your flock and will continue to spread disease. Upon initial identification, more of the flock should be sampled in order to identify and remove infected animals.

If OJD is diagnosed, simply testing and culling infected sheep is unlikely to eradicate the disease because the mycobacteria can survive for prolonged periods in the environment. Vaccination of lambs can help reduce the severity of disease and should be discussed with your vet where appropriate.

When buying in new stock, always ensure that these are quarantined for at least 28 days. During this period, these could be tested for any iceberg diseases, and also monitored for any clinical signs.

Good biosecurity is essential to keep these diseases out of your flock. Double fencing or a good, thick hedge can stop any direct contact between neighbouring flocks that could spread disease. Ensure that visitors to the farm use a foot dip and wear clean protective coverings over their clothes.

Could Thin Ewes Be the Tip of the Iceberg?

Thin ewes should never simply be accepted as part of the flock. Identifying the underlying cause now, whether nutritional, parasitic or an iceberg disease, provides the best opportunity

to improve fertility, lamb performance and flock productivity next season. Working closely with your vet to investigate poor-performing ewes can help identify problems before they become widespread.

For more information on the iceberg diseases, visit the 'Sheep Health' section of the Animal Health and Welfare NI website at **www.animalhealthni.com**.