

Ewe nutrition is key to good quality colostrum

Ensuring lambs get the best colostrum in the crucial first six hours of life will repay producers, as **Heather Briggs** reports

Sheep farmers should not be fooled by the mild conditions this spring, warns specialist sheep vet Iain Richards.

He is concerned that the early grass is not yet nutritious enough to stand alone without supplements, so ewes will not be sufficiently well nourished to produce enough good quality colostrum.

"The more we learn about lamb mortality, the more we learn the importance of getting sufficient good quality colostrum into lambs in the first six hours of life," emphasises Mr Richards, a director of XL Vets UK. "Lamb vigour is vital to their survival."

For example, he says, twin lamb disease occurs less frequently during hard winters, because extra feed goes out. This nutrition goes into producing colostrum, so the lambs receive better protection.

"We know twin lamb disease can be caused by poor quality nutrition at a critical time, for example, a change to poorer quality silage bales can make all the difference to the colostrum quality.

"Producers will no doubt have done their homework and the nutrition analysis on their hay and silage last autumn, and know exactly what and how much they should be feeding. This plan should not be abandoned."

SHORT-TERM ENERGY

Lambs have no antibodies in their bloodstream at birth so rely on ingesting enough good quality colostrum for protection against common pathogens. They are born with about five hours' worth of energy to allow them to get to their feet to suckle. This is the brown fat stored around the kidneys and the chest and is laid down in the last four weeks of pregnancy.

"Lambs can soon suffer from hypothermia and all their reserves can quickly be used up if they don't receive the immediate energy from colostrum," says Mr Richards.

"If they can't suck, it can work out expensive for the producer as the cost of mortality, or, in the case of survival, poor food conversion and growth rates will eat into profit margins. It's also an avoidable welfare issue," he explains.

A lamb should receive about

50ml colostrum/kg within the first six hours of life, so the capability of the ewes to produce sufficient good quality colostrum is critical.

"Not feeding nutrient-rich feeds in the last six to four weeks of pregnancy is a false economy," emphasises Mr Richards.

When carrying out post-mortem examinations, one of the signs he looks for is the brown fat around the kidneys and liver. "If the lamb's a couple of hours old and hasn't got the brown fat around these important areas, it's a sign that the ewe had insufficient feeding in the last month of pregnancy."

Suckling the crucial 200-250ml of colostrum within six hours of birth should allow the lamb to achieve adequate passive transfer of immunity (APT) and the all-important energy boost.

"It's a good idea to keep an eye on first-time dams, as you sometimes see them refusing to allow the new-born to suckle," he advises.

Observing the lamb suckling is not foolproof. "Just because the lamb's suckling doesn't mean it's ingesting milk," he says. "Many farmers feel the lamb's stomach to check whether it's full."

Mr Richards adds that some lambs curl up and look comfortable, but the golden six hours can pass without them ingesting colostrum. Some producers double tube every lamb and give the initial 100ml, repeating the dose four hours later. "It's labour intensive, but ensures every lamb receives the correct amount of colostrum."

He remarks that the antibodies produced by the ewe are specific to local conditions and reminds producers buying in-lamb ewes that they need to be given enough time before lambing to produce the right antibodies for that farm.

Where there is any doubt as to the quality or quantity of the colostrum, he advises supplementing, preferably with colostrum from other ewes in the flock. "These will still have the antibodies produced for the local area, so it's closer to what the mother would have provided."

If none is available he suggests dosing with dried colostrum, preferably sheep's, although goat and calf are better than nothing.

"But, best of all, is to invest the money in ewe nutrition so they provide enough of their own colostrum to protect the lambs."

CHALLENGES FOR 2014

One of the most important functions of colostrum is to provide antibodies to protect against the threat of particular diseases; this year there have been no new disease threats so far.

The number of Schmallenberg cases has largely receded and they appear to be more intermittent.

Liver fluke, however, could be a problem as there will have been a high survival rate with the mild winter, even on pastures that have been rested ready for lambing.

"If the ewe contracts this parasite, the ewe loses condition and fluid collects underneath the jaw. The problem lies in the damage they do to the liver as the immature flukes migrate and the liver is where the antibodies are made. If ewes are carrying a heavy fluke burden, their response in producing antibodies after vaccination will be affected, and you may need to look at supplementing what the lambs receive."

Timing of vaccinations is also crucial to lamb survival. "For example, ewes that have been vaccinated or exposed to a particular disease will produce colostrum with higher antibody levels to these diseases and it may well be worth preserving some colostrum from them for use at a later date."

But these special antibodies are time-sensitive, too. If vaccinations are done eight weeks before lambing, they will have declined before the colostrum is produced. If they take place two weeks before lambing, the ewe's immune system will not have had time to produce them. "This can cause a problem for farmers with staged lambing times," says Mr Richards.

He says there are large quality differences in the dried colostrums on the market, but says none come close to the proper stuff.

"Clearly, the best investment to make is in your ewes, to make sure they have access to good quality nutrition and work out how they are utilising these nutrients to provide colostrum."