

Media release

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Cobalt required for lamb growth

Good pasture growth through the spring months could disguise a chemical deficiency that will hold back the growth rates of weaned lambs.

Jeff Morton, a Ballance Agri-Nutrients technical advisor in the South Island, says cobalt is a key factor in healthy lamb growth after weaning and can be applied along with any spring maintenance fertiliser.

'Keeping an eye on cobalt levels in weaned lambs plays a big part in securing their growth rates,' advises Jeff.

Jeff says low cobalt content in pasture can cause lambs to be deficient in vitamin B12, which is vital for their healthy growth past weaning.

'The degree of deficiency will vary from year to year. In a spring with rapid pasture growth, the cobalt taken up from the soil will be diluted and there will be less cobalt-containing clover in the sward.

'So if we are lucky enough to get a "growthy" spring, then it is a good idea to sample mixed pasture in late spring before weaning.'

Jeff's practice is to select 4-6 paddocks per farm for testing. The results will determine the best course of remedial action.

'If the cobalt content is below 0.08 ppm then cobalt will limit lamb growth through insufficient vitamin B12. In this case the best option will be to inject lambs with a vitamin B12 injection.

'At the first lamb draft, the vitamin B12 content in the liver should be tested at the processing plant through the Optigro scheme. If the liver vitamin B12 levels are low or marginal, this will confirm the low pasture cobalt levels.

'At each lamb draft, the liver testing should be continued and if necessary, the remaining lambs should be injected with vitamin B12 at monthly intervals.'

Cobalt can also be applied to pasture as a liquid, but the issue can be resolved simply by mixing granular cobalt with whatever maintenance fertiliser is being broadcast in the late spring.

While most farmers make their main application of fertiliser in the autumn, this is not the right time to apply cobalt, says Jeff.

'You have to get the timing right. October and November are the best months for cobalt application to resolve any growth issues with young lambs.'

The deficiency signs in lambs are relatively easy to spot, says Jeff, with afflicted lambs exhibiting impaired growth rate and wool growth, along with signs of anaemia in severe cases.

'You can see there's something wrong. Often the lambs have crusty ears and watery eyes as well.'

Jeff says cobalt has two main functions. It's needed for the rhizobia that fix nitrogen and it is vital for the formation of vitamin B12 in ruminant stock. But there is always sufficient for the rhizobia in the soil.

'The higher the stocking rate, the more demand there is for cobalt.'

In New Zealand, four regions are particularly vulnerable to cobalt deficiency. They are:

- Northland's highly weathered and sandy soils
- The rhyolitic ash-based yellow-brown pumice soils of the Central Plateau
- Nelson's granite-derived yellow-brown earth soils
- The leached yellow-brown soils derived from sedimentary rocks in Southland.

'Lambs are most susceptible in late spring-summer in the North Island and summer-autumn in the South Island.'