

Protect heifers from liver fluke to optimise age at first calving

# Protect your investment

Preventing and controlling liver fluke in young stock will not only safeguard heifer growth and fertility, but can also serve to protect milking herd productivity. We spoke to one of the UK's leading cattle vets to find out more.

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**M**ore producers should be checking to see if cattle parasites pose a potential threat to the efficiency and profitability of their herd. Liver fluke infestation, in particular, can impact on heifer growth rates, as well as fertility. And mature cows can

also experience a reduction in milk yield and fertility – both of which can make a serious dent in the business' bottom line, if they're infected with liver fluke. Bulk milk antibody tests (ELISA) performed by NML during the past 12 months have identified that, of the

samples taken, 43% of herds have been exposed to liver fluke. And, with liver fluke reported to cost the agricultural industry £300 million a year and having an economically significant effect on milk yields, managing the infection in young stock could have significant benefits to long-term dairy herd performance. So, what is 'best practice' advice on preventing liver fluke in young stock – and treating any infected cattle – to help reduce the associated costs of the disease and maximise margins?

"The key here is to achieve good levels of fluke control in young stock, so they enter the milking herd free of infection," says vet Andy Forbes, who is Honorary Professor at the University of Glasgow's





School of Veterinary Medicine and also a technical representative of the industry stewardship organisation COWS (Control of Cattle Worms). This is an industry-led steering group, which promotes sustainable control strategies for managing cattle parasites.

“Not only will controlling liver fluke in heifers help to ensure that the milking herd’s performance is not affected by the disease, it also avoids the issue of managing flukicide milk withdrawal periods,” he explains. There are currently no zero-milk-withdrawal period products licenced for use on dairy cows, so controlling the parasite in lactating animals can be tricky.

A typical sign of liver fluke is a drop in milk yield. It may only be a slight decrease in some instances, but liver fluke costs the UK dairy industry £5.8m each year in lost production alone. And as its name suggests, liver fluke can also cause severe damage to the cow’s liver and this can also have a knock on – and



costly – effect on fertility. And it’s no longer a parasite that’s confined to the wetter parts of the UK. Even the drier eastern regions are seeing cases of the disease. Producers are advised to monitor their herds for liver fluke, by testing bulk milk for antibody levels and then, if levels are of concern, by looking for liver fluke eggs in cow faeces.

### **Milk withdrawal**

Dr Forbes says that if treatment is necessary, as is increasingly the case and even in areas that were traditionally too dry to allow the host snails to survive and thrive, then it can be difficult due to the required milk withdrawal following treatment. “One option is to administer flukicide routinely at drying off. But it’s not ideal. Treating the entire herd at the same time is preferable because this can have a substantial effect on the amount of larvae and eggs shed onto pasture and can help to control the parasite more effectively. But the ‘drying off’ dose does offer individual animals some protection. As does preventing animals from grazing in, and close to, known wet areas where the snail hosts live.”

Monitoring heifers for signs of the parasite and treating accordingly will play a significant role in preventing a liver fluke problem in the milking herd later on. “Young stock are often grazed on ‘rougher’, wetter pasture – grassland that would be readily poached by larger milking cows. And yet it’s here that they could be more likely to come into contact with the snail host and ingest larvae,” says Dr Forbes.

“Think about where heifers are grazed, with a view to preventing infestation.”

Signs of liver fluke in heifers include a decline in expected growth rates and perhaps a reduced conception to first service rate. “Mature fluke migrate to the liver and can cause significant damage. Because the liver regulates the heifers’ hormonal balance, fertility can be compromised.”

If you think your heifers may have a liver fluke problem, he suggested a bulk milk ELISA test on the milking herd first: “If it’s not in the milking herd then it’s unlikely to be in the young stock, so that’s a good starting point.

“If the bulk milk test is positive and antibody levels are significant, a faecal egg count in the milking herd can further gauge the level of infestation and help determine the need for treatment. A faecal egg count test can be also be used to test heifers.



*Andy Forbes: “Liver fluke infection in heifers can delay the onset of puberty”*

“It’s vital to assess the heifers and treat them periodically – as and when necessary rather than routinely – to minimise the use of flukicides. The good news is that, when treating heifers, there’s no milk to withhold so they can be treated as a group and this offers better control of the parasite.

“Liver fluke infection can increase heifer age at puberty – a recently study showed a typical delay of at least a month. This can lead to later first service and push up the cost of rearing replacements.

“This can be felt particularly keenly in block-calving herds, where a delay in calving can significantly disrupt a tight – and efficient – calving pattern.

“For some herd, tackling the problem at heifer level will be sufficient to achieve good control. For others, routinely using a flukicide at drying off may be the best approach, but it won’t necessarily have an impact on pasture contamination and re-infestation,” says Dr Forbes.

### **Spring-calving ‘advantage’**

“Spring-calving herds have an advantage here. The whole herd can be treated at drying off – typically around Christmas time – and because they’re all treated at once and usually housed then there’s only a small chance of them picking up a new infection. And there will be no eggs being passed out in the dung when they go out to pasture in the spring.”

Due to the complicated lifecycle of liver fluke and the issues surrounding milk withholding periods, Dr Forbes recommends that, if producers think they have a problem, they should talk to their vet for advice on how to best prevent and control it in their herd. “This will not only safeguard heifer growth and milking cow productivity – and overall herd fertility – but it will also make sure that any flukicide treatments are both appropriate and effective.” |