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Pointers for parasite control

Treating dairy cattle for parasites – both internal and external – can be complicated. So we share some key areas of best practice when it comes to their control through the safe and effective use of anthelmintics.

TEXT RACHAEL PORTER

Wet autumn weather means that liver fluke poses a significant risk to dairy herd profitability on many units this winter. And, indeed, other parasites – both internal and external – may need tackling during the housing period. So what can producers do to make sure that they get the best results from parasite-control products?

Effective use of anthelmintics is a key component of effective parasite control, but ensuring you get the most out of treatments given requires a back-to-basics approach. And it all starts with knowing which parasites you're dealing with and understanding their lifecycle.

So says Boehringer Ingelheim's vet Sioned Timothy, adding that only then can producers – with help from their vet or SQP (suitably qualified person) – select the best treatment to effectively tackle the problem.

"Take external parasites as an example. Some are surface feeding parasites, such as chorioptic mange mites or biting lice, and others will burrow into the cattle's skin, such as sucking lice and sarcoptic mange mites. It's important to know what you're dealing with. If you only treat for non-burrowing parasites with an injectable macrocyclic lactone product, you may not achieve the same level of control post treatment, because this is less effective against surface parasites than a pour-on treatment."

Accurate diagnosis

"So, to be sure of what's causing that itch, ask your vet to carry out a skin scrape and get an accurate diagnosis."

Then, and only then, can informed decisions be made about which product or products need to be



Seek advice when buying anthelmintics

SQP Mark Pass, from Beeston Animal Health, says that he'll easily spend half an hour discussing a potential parasite issue with a producer, before he prescribes an over-the-counter anthelmintic. "These conversations – about the parasite problem, diagnostics, the cattle and the management system – are vital to confirming a diagnosis and the lifecycle stage or stages of the parasite in question. It also means that the producer invests in the right product at the right time."

He says that producers should always be wary if they're not offered advice at point of sale. "No country store should be selling POM-VPS anthelmintic products without asking questions or offering a degree of consultation," he stresses. "The age of stock, the grazing system, test results from bulk ELISA or faecal eggs counts to confirm the presence of parasite are all questions that help to paint a clear picture of what's going on and how best to tackle it."

Mr Pass says that a good SQP will also offer advice on how to store and administer anthelmintic products. "We even run workshops on oral dosing, injection and pour-on products. It's all about ensuring the efficacy of an anthelmintic – to prevent any resistance issues but also to ensure that it actually does what producers need it to do: to kill off the offending parasites and, at the same time, protect the future efficacy of the product by reducing the risk of selection for resistance."

used to tackle the parasite problem. Invariably at housing there is more than one parasite to tackle. Some products can treat two or more at the same time – sometimes internal and external.

Ms Timothy stresses that it's also important to know the lifecycle stage of the parasite you're dealing with. "Liver fluke, for example, goes through multiple developmental stages within the animal, and the products that are available to treat fluke have different spectrums of activity against these stages – they all treat mature fluke, but their efficacy against earlier stages varies.

"This means that, if cattle are treated at housing, it's important to consider that some fluke may survive treatment and to take measures to combat the risk that cattle fertility and productivity may be compromised as a result. This will require action later in the housing period, either performing diagnostic testing to determine fluke status or administration of a strategic follow up treatment to ensure cattle remain fluke free." Similar considerations apply when treating worms. Not all anthelmintics are effective against the inhibited stages of the gut worm *Ostertagia ostertagi*, which can go on to cause type 2 ostertagiosis or winter scours after housing.

Product persistency

"This may be particularly important in groups of young stock that have been heavily exposed to parasites during the grazing season," says Ms Timothy. "Product persistency should also be taken into account – not all wormers protect against reinfection, a feature which may be significant if cattle are returned to infected pasture after treatment for gut worm and lungworm. The product data sheet will provide information on these properties."

Another area that warrants attention, and is essential for both product efficacy and reducing the risk of resistance, is dosing. "Check that the applicator, syringe or dosing device, is measuring accurately before you begin treating stock. And weigh the animals to be treated so you administer the correct dose to ensure parasite kill."

She says that modern dairy cows are often larger than the 550kg to 600kg animals, which the standard dose for

many cattle treatments applies. "So check and adjust the dose accordingly. If you don't, you won't get the full benefit of treatment and the risk of selecting for anthelmintic resistance could be increased." Ideally, the gold standard is to weigh each animal to be treated and calculate the dose accordingly, but that's far from practical on many units. So Ms Timothy recommends weighing a representative sample of cattle in the group and treating to the heaviest weight. "Where there's a lot of size variation, cattle can be subdivided into two or three 'weight' groups and dosed accordingly.

Correct storage

Storage is important too – anthelmintics must be stored according to the data sheet. Exposure to conditions, such as direct sunlight and extreme temperatures, can damage the product and prevent them from being effective.

"Storage really can make all the difference and it's important to check individual product labels," she says. "Some products have a limited shelf life once opened. Others can be resealed and stored, and can continue to be used until their use-by date."

She stresses that after each use, applicators or dosing devices must also be detached and cleaned, and the product must also be resealed – so keep the bottle lid. "These devices are designed to be used again and again, but need to be correctly maintained. Leaving an applicator filled with a dose of product could damage the equipment. So always detach applicators and clean and store them correctly."

It can be complicated to target anthelmintic use efficiently, effectively and responsibly – not least when there's also milk-withhold to also consider. "So, if in doubt, it's always good to get advice. And there's plenty of that available at point of sale for anthelmintic products."

"SQPs are well versed in what to ask producers and how to make sure they buy the correct product and use it at the correct time and in the correct way."

"They'll talk producers through the whole process and make sure that they see returns on their investment in parasite control, and that the products are used in a responsible way." |

New pathway to lameness control

A revamped scheme to help producers tackle lameness is set for launch in 2020. We spoke to one of the vets tasked with reviewing the programme to find out what changes are afoot.

TEXT RACHAEL PORTER

The success of AHDB Dairy's mastitis control plan has prompted a revision of the organisation's Healthy Feet Programme (HFP). The former was developed and managed in conjunction with some of the UK's top cattle vets. Launched in 2008, it has seen significant uptake among UK producers and, the latest figures show that it has contributed to reducing the number of clinical mastitis cases in participating herds by, on average, 20%. Some herds saw even greater reductions and this figure continues to improve each year.

On the back of this success, AHDB has revamped the organisation's Healthy Feet Programme (HFP) and it hopes this new scheme will help to emulate the success of the mastitis control plan and see a reduction in lameness in our dairy herds.

Vet Sara Pedersen thinks it could. She's part of the team charged with drawing up changes to the existing HFP to make it more accessible and simpler for producers to follow – or dip into if they prefer that approach.

The team also comprises hoof-health specialist vet Nick Bell, vet and cow signals expert Owen Atkinson, as well as hoof health specialists from AHDB Dairy.

HFP, which was first launched back in 2008, is set for a re-launch in spring 2020. "The existing HFP is proven. We have numerous on-farm studies that show that it works. But to really tackle the problem we need to increase uptake and engagement," explains Ms Pedersen. "So we've been tasked with reviewing the HFP and making changes that will result in better uptake and direct engagement with producers." AHDB has developed a more straightforward approach that's producer centred – and also geared up for nutritionists and advisers.

Mobility mentors

"In its current incarnation, it's mostly delivered by vets and, to date, more than 120 vets and qualified foot trimmers have been trained as 'mobility mentors'. By opening up the new programme to suitably trained advisors and nutritionists, it will hopefully increase engagement and make it easier for producers to access the scheme," says Ms Pedersen. "In our experience, producers are more likely to tackle a problem – particularly something that can be as daunting as lameness – if it's done on their terms, at their pace, and approached using their ideas and solutions.

Most producers already know what needs to be done on their units to tackle lameness, but need guidance on how to prioritise any new regimes or changes – and how to implement some of the more difficult aspects of lameness prevention – as well as help in bringing the whole farm team together to solve the problem. The programme is less about 'you should' and 'you must' and more about identifying the barriers to change and addressing these so that solutions can be implemented.

To avoid putting producers off, the team is also looking at what it calls Healthy Feet Programme 'Lite', which is an entry level approach. "This involves a visit from a trained mobility mentor," explains Ms Pedersen. "It gives producers a taste of what the programme can offer, but there's no long-term commitment. The 'Lite' programme may be enough



Sara Pedersen:

"The scheme will be producer led and focused on guidance, rather than prescriptive advice"



for them to sufficiently tackle a problem. It will highlight areas where improvements can be made to ensure that lameness incidence falls as a result of changes implemented after this initial visit,” she adds. “Producers would also have the option to sign up for the full programme, if they felt they needed further help and support to tackle a lameness problem.”

Producer-led programme

Note that Ms Pedersen doesn’t say ‘advice’. “The HFP approach isn’t your typical advisory scheme,” she stresses. “It’s producer led and focused on guidance rather than prescriptive advice. The producer, when asked what they think they should do to tackle a particular problem, such as poor lying times, often has the answer already. The role of the mobility mentor is to guide them through the various options to finding the right solution for their herd.

“There will be some easy wins – low- or no-cost changes that can be made that make a difference. Such as reducing standing times when waiting to be milked. Or more frequent scraping of passageways. “And there would also be things that require

investment – perhaps a new foot bath or modifying or replacing cubicles. But it will all be at the producer’s pace and realistic.

“It’s not possible – either due to time or financial constraints – to do everything at once. But this puts the producer on a path towards tackling the causes

More accessible scheme

Something does, indeed, need to be done to help producers take control of hoof problems in their herd. Ms Pedersen says that lameness in the average herd runs at around 30% – that’s one in three cows. “So it clearly needs to be addressed. The programme is there and it works. We need to highlight it to producers and make it more accessible.”

The best-managed herds are seeing lameness rates lower than 5%, according to Nick Bell. “My impression from working with progressive producers is that lameness has reduced in UK herds, as techniques and knowledge have improved. But there’s still more to be done. And, increasingly, milk buyers are also starting to look at lameness incidence in the herds that supply them. So the more proactive producers can be on this issue the better.”



of lameness – and controlling it – once and for all. It puts them in control and provides them with achievable targets.”

Fair caveat

Ms Pedersen believes, to some degree, that producers are sometimes fearful of tackling lameness.

“The biggest step is usually admitting that there’s a problem. Many are concerned about their milk contracts, believing that if they admit to a lameness issue that this could have repercussions.

“And I think that’s a conversation that needs to be had across the supply chain. If producers can show that they’ve signed up to a scheme to tackle lameness and they’ve made a commitment to reduce the incidence in their herd, that would be a fair caveat to add to a milk-buyer contract.

“But to stipulate that it has to be below a certain percentage and expect producers to achieve that overnight is unrealistic and will actually drive many producers to dis-engage altogether.

“Far better to have them thinking about lameness and making some progress, than do nothing for fear of milk-buyer repercussions.” |

Four ‘success factors’ for controlling lameness

Low infection pressure

- Hygiene: How clean are the cows?
- Footbathing: How effective is the current regime?

Good horn quality and hoof shape

- Foot trimming: When and how are cows being trimmed?
- Nutrition: What is horn quality like?

Good cow comfort and cow flow

- Cow comfort: How comfortable are cow beds and what stops them maximising lying times?
- Cow flow: How do cows move around the farm and what condition are the walking surfaces in?

Early detection and prompt effective treatment

- What measures are in place for detecting lameness?
- How are lame cows treated, is best practice implemented?