August 2019

All the latest news and advice from your local, independently owned practice

Farm news

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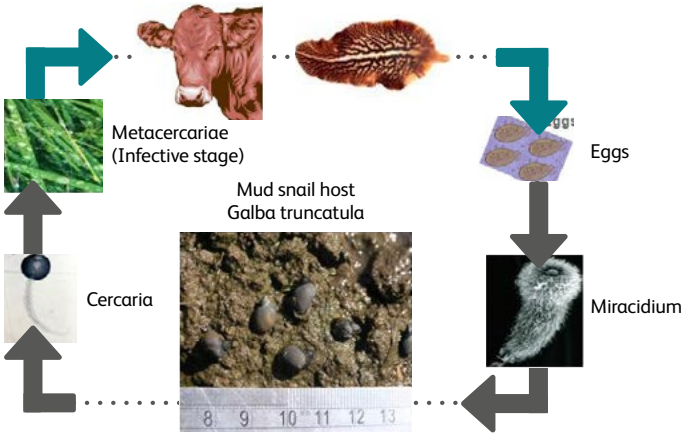
Liver fluke review

Liver fluke is an increasingly common parasite found in cattle and sheep in the UK which can cause extreme productivity and welfare issues. Fluke infection already costs UK agriculture approximately £300 million per year due to production losses, with liver condemnations alone costing over £3 million per year.

Infection can be spread from sheep to cattle and vice versa, and is most common on wet, muddy pastures. For the fluke life cycle to occur, certain species of snail are required to support fluke development from egg to larvae, which can only live in muddy areas or slow moving pools of water. Snails can hibernate over winter and fluke can then resume development once again in the spring. Once developed, larvae are ingested by grazing cattle. It then takes 10-12 weeks for fluke to reach the liver and mature enough to start producing eggs that can be diagnosed in faecal samples. Liver fluke is a seasonal disease in the UK and development of the above stages occurs most commonly between May and October, with largest numbers of larvae being released from snails at the end of the summer months if the weather remains warm and wet.

Acute fluke in the autumn/early winter months is rarely seen in cattle, but much more common in sheep. Cattle more commonly develop chronic disease, seen in late winter or early spring, including in housed cattle if left untreated. Signs seen can range from obvious weight/condition loss, scour and anaemia to less obvious reduced growth rates, fertility, and can cause changes in carcass composition and milk yields. Cattle infected with fluke are thought to be more susceptible to Salmonella infection and Clostridial disease (Black disease). Cattle do not tend to develop immunity to liver fluke and so infection can be picked up at any age, multiple times.

When investigating production loss/diarrhoea, liver fluke can be diagnosed in a variety of ways, depending on the stage of disease.



Blood or milk antibody ELISA tests can detect early infection before eggs are produced, however antibodies are also known to persist for 4-10 weeks after treatment so can simply mean the animal has been only exposed to the parasite. For dairy herds, bulk milk ELISAs can be used routinely on a quarterly basis to monitor infection/exposure levels within the herd. Faecal egg counts are also commonly used in individual animals or pooled for groups of animals, however lack sensitivity and can only detect infection when adult flukes that can produce eggs are present.

It is important to remember that farm details such as herd history, pasture type, time of year and weather conditions over summer impact on the likelihood of fluke infection on farm. NADIS do provide regional monthly updates on fluke risk, however individual farm risk factors must always be taken into account.

Control depends on farm type/level of infection and will vary year on year depending on weather conditions. A good control plan would include reducing pasture contamination/use of grazing strategies to avoid contaminated pasture in autumn, and drying out wet areas of pasture alongside use of drugs to target the stage of fluke likely to be present in the animal at the time. Remember that many flukicides are not licensed for use in lactating dairy cattle or have a long milk withdrawal. Therefore, it is important to consult one of our vets next time they are on farm to discuss best control strategies and drugs suitable for your farm this season!

Parasitic infections in adult dairy cattle

Rose Jackson BVSc DBR CertVBM

Adult dairy cows can harbour a large number of gastrointestinal parasites. A large scale abattoir survey carried out in the Netherlands, UK, Germany, Belgium and the USA found that 83-100% of culled dairy cows were infected with gutworms but what does this mean in terms of a cow's performance?

Milk production and quality

Numerous studies have shown that strategic anthelmintic treatment with Eprinomectin (e.g. Eprizero) can result in a positive milk yield response, varying from 0.35 to 2 litres per cow, per day; this effect is particularly marked in heifers. The quality of the milk produced from treated animals is also superior, with consistently higher milk fat, protein and overall milk solids. Eprinomectin-treated animals have been shown to graze for up to an hour longer each day, which can increase their dry matter intake (DMI) by up to 1kg per day. Given milk yield is positively correlated to DMI; high DMI results in higher nutrient intake and, therefore, higher milk yield.

Fertility

Not only are there significant benefits to eprinomectin treatments on production parameters, the fertility of animals treated with eprinomectin can also be significantly improved. Improved calving to conception intervals and higher conception rates at first service are associated with treatment at calving. The elimination of parasites around calving time is thought to improve energy balance during the post-partum period, thus reducing metabolic disorders, with consequent significant benefits on reproductive performance.

In conclusion, strategic use of eprinomectin e.g. first lactation heifers at calving or any cows with low BCS (Body Condition Score) at housing, can have a positive effect on yield and fertility.

The COWS five Rs principles

Wormers should always be administered following the COWS five Rs principles: RIGHT product; RIGHT animal; RIGHT time; RIGHT dose; given in the RIGHT way.

For further details visit **www.cattleparasites.org.uk**

Come and see us at Ashover Show

Wednesday 14 August – The Rectory Fields
Ashover, Derbyshire S45 0BA

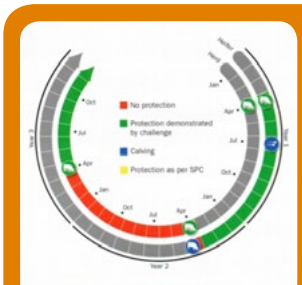
Mind the immunity gap

Chantal Bryant BVM&S BSc MRCVS

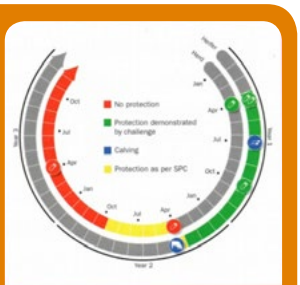
The transmission of BVD (bovine viral diarrhoea) is complicated and protecting the foetus from the virus should be at the heart of any control programme. The virus is passed from cow to foetus and, if this occurs in the first third of pregnancy, a persistently infected (PI) calf will be born. These will then go on to shed virus throughout their lives, so infecting herdmates and the next generation of calves.

"The timing of when a vaccine is given is critical to the development of an immune response, which will protect the unborn foetus," explains vet Jon Reader from Synergy Farm Health, an XLVets practice. "Working out when you want her to calve and then calculating back shows when either a primary course of BVD vaccine or a booster should be given, but get this wrong and you will end up with what is known as an immunity gap".

In the case of heifers, they **MUST** be fully protected before being served for the first time, and cows must have had immunity boosted before they are pregnant again. However, far too often heifers are adequately protected following an initial course of vaccinations, but given their age and date of service, do not receive further protection until they enter the adult herd. If heifers calve just after the herd booster, then there is a very real possibility that they will go for two years without a booster and be severely exposed when they become pregnant as a first lactation heifer. This is termed the immunity gap; a period when the animal is not protected from the virus at all. Obviously, this period should ideally be as short as possible.



One-shot timeline



Two-shot timeline

Source: Mind the Gap

With this in mind, Jon Reader has developed an online tool called "Mind the Gap" (www.makebvdhistory.co.uk). Farmers simply input their breeding protocols for maiden heifers, as well as the timings of their annual herd booster. The app will then highlight times when animals may be at risk if immunity has waned, without sufficient boosting of immunity by vaccination.

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Pride Veterinary Centre 01332 678333
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Stretton 01283 565333
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