Breaking the grip of parasites

The correct timing of treatment and selecting the right products are critical to ensuring cattle remain in good health when housed for the winter, writes **Gordon Peppard**

AS cattle come off grass and are housed for the winter, they bring in with them a huge burden of parasites.

Without treatment these parasites can do a lot of damage, reducing thrive by causing a drop in appetite and feed intake thereby affecting performance. If untreated these parasites can reinfect pastures after turnout and keep the cycle going.

Housing is one of the best times to break this cycle and treat cattle against the most common internal and external parasites. So what parasites are we targeting at housing?

The main ones are stomach worms, lungworms, liver fluke and lice, whilst rumen fluke may need to be taken care of, if an issue on individual farms.

The number of parasites carried by cattle at housing can vary according to a number of factors, their age, health status, grazing management and level of previous treatments.

As cattle cannot pick up worms and liver fluke while they are indoors, an effective treatment programme shortly after housing keeps them free of these parasites until they return to pasture or are slaughtered.

The choice of product to use and the correct timing of the treatment then become the critical questions to answer.

Many of the above active ingredients are found in combination products, but be sure to check the label for efficacy against various stages of parasites and consult your vet if you are in any doubt.

These parasites are very difficult if not impossible to get rid of at farm level and can cause both clinical and sub clinical losses on your farm, therefore the rationale for their control is good and the housing period provides an excellent opportunity to simply treat a broad spectrum of parasites at the one time.

Difficulties in treating Liver Fluke

It is very important to understand the different stages of the liver fluke lifecycle, as a lot of products will only control adult liver fluke, but liver fluke have distinct stages, go from early immature to immature followed by adult fluke.

In a cattle situation for example, going in too early with a dose after housing will not kill immature fluke and within a matter of weeks they will have developed into adults.

If the flukicide used at housing is only effective against older immature and or adult liver fluke, then faecal sampling six to eight weeks later is recommended to see if more fluke have developed and a further dose is required.

Alternatively, fluke treatment can be delayed until at least six weeks after housing until most of the fluke have developed to at least the immature/adult stage and are susceptible to the treatment.

Dosing with a triclabendazole two to three weeks after housing should kill all the stages of fluke present and therefore a follow up treatment should not be necessary.

For cattle that are to be slaughtered out of the shed be aware that flukicides tend to have a long withdrawal period, typically between 50-60 days.

THE MAIN PARASITES, THEIR CONSEQUENCE AND THE TREATMENT OPTIONS

Parasite	Consequence	Treatment	
STOMACH WORMS *only effective against adults	Poor performance	Benzimidazoles (white drenches) Endectocides Levamisoles (yellow drenches)*	
LUNGWORM	Hoose Increased risk of pneumonia	Benzimidazoles Endectocides Levamisoles	
LIVER FLUKE	Poor performance	Albendazole Clorsulon Closantel Nitroxynil	Oxyclozanide Rafoxanide Tricabenazole
CHEWING LICE AND MANGE	Poor coat Scratching Poor growth	Endectocides Pyrethroids Amitraz	
SUCKING LICE	Anaemia Poor growth Scratching	Endectocides Pyrethroids	

STAGES OF LIVER FLUKE CONTROLLED BY DIFFERENT PRODUCTS

	Liver fluke stage		
Active ingredient	Early Immature (2 weeks)	Immature (6 weeks)	Mature (10 weeks)
Triclabendazole	✓	✓	✓
Closantel		✓	✓
Clorsulon			✓
Oxyclozanide			✓
Nitroxynil		✓	✓
Rafoxanide		✓	✓
Albendazole			✓

An effective treatment programme shortly after housing will keep cattle free of parasites until they return to pasture or are slaughtered.

Soil fertility testing is the foundation of good farming

IF YOU don't have a soil test for your farm you don't know what you are dealing with.

Many farms around the country are in this position and haven't a soil test result for their farms for years, if ever.

Over the last number of years National soil fertility trends have been on the downward slope with only 10pc of farms at the optimum level for pH, phosphorus (P) and Potash (K).

Soil fertility is like the foundations to a house.

It is the basis to which all activities on your farm are dictated by.

If the soil is not in top working order it will not be able to drive the grass or crops on the farm that will lead to poor performance, poor quality grass and fodder, thereby reducing stocking rate and output from your farm.

All of this in the long run will affect the profitability of your business.

Now is an ideal time for you to plan and make decisions regarding fertiliser and manure management strategies for your farm.

Targets

The target levels for pH on grassland are 6.2 to 6.3 and P and K should be at index 3.

At these levels, land will be very responsive to applications of lime and compound fertilisers.

On many farms sub-optimal soil fertility will lead to a drop in output and income if allowed to continue.

It is very important to complete a farm fertiliser plan for your farm to avoid further decline in soil fertility levels.

There are five key steps for effective soil fertility management:

SOIL TEST

- The whole farm should be sampled and tested for pH, P and K.
- Have one sample for every five to 10 acres.
- Take sample in a W shape to get a random sample.
- Make sure there is a minimum of 20 cores per sample.
- The sample should be taken to a depth of 10cm and during the late autumn to early spring.
- Leave at least three months from the last application of fertiliser or slurry
- Avoid unusual spots, like where a ditch was removed, feeders, farmyard manure stored.
- The cost is small at around €0.50/ac/year

SOIL PH AND LIME

- Correct lime status first.
- One to two tonnes of lime per acre are removed every five years
- Target pH of 6.2 - 6.3 for grassland.
- Apply lime as required to increase soil pH up to target, as 60pc of the country has a pH of <6
- Apply to bare ground or low grass covers.
- Do not apply within six months if on a silage field, as it may affect preservation.

TARGET P AND K INDEX 3

- Aim to have soil test P and K in the target Index 3 in all fields, only 25pc of soils are at index 3
- Low index fields will have less productivity and they will require additional fertiliser.
- Index 3 soils only require maintenance levels of fertiliser to replace crop off takes.

SLURRY AND ORGANIC MANURES

- Use the resources on your farm.
- Most of the value is in the P and K.
- Spread slurry and farmyard manures on low P and K index soils.
- Spread as much as possible in the spring to maximise availability of Nitrogen.
- Timing doesn't have as big effect on P and K as N

BALANCE THE LAND WITH FERTILISER

- Choose a fertiliser that is well balanced to make up the crop requirements.
- The nutrient in the shortest supply will determine the yield
- Have N, P, K and S in the correct ratios.

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Don't give stock water you wouldn't drink yourself

WATER is the main constituent of the animal's body, making up 50 to 80pc of the animals live weight, depending on age and degree of fatness.

An animal can lose almost all of its fat and up to 50pc of its body protein and survive.

However, the loss of 10pc of its body water can be fatal. Therefore, a successful livestock enterprise requires a good water supply.

A good water supply is defined both in terms of quantity and quality of the water. Therefore, animals should never be without clean fresh water and the water should be of a high enough quality that you could drink it yourself.

Water is obtained by the animal from three different sources, from the feed, from drinking supply and from metabolic activities in the body.

The amount of water required as drinking water varies with the dry matter of the feed, the temperature in the environment and the production level of the animal.

An animal eating silage with a dry matter of 20pc will need less water than an animal eating silage with a dry matter of 30pc and getting one kg of meal.

As the feed dry matter content increases the amount of drinking water increases accordingly.

If the temperature in the shed goes above 10C the water requirement also rises.

Finishing stock on high concentrate diets will have a big demand for water and should never be left without water.

Be careful when giving water to very thirsty cattle as over-drinking can cause severe problems.

DRINKING WATER REQUIREMENTS.

Animal	Total water required per day
Calf (2 – 6 months)	20 litres
Weanling 300kg	20 – 30 litres
Store/Dry Cow	40 – 55 litres
Suckled Cow	45 – 65 litres