THE UNIVERSITY of EDINBURGH
The Royal (Dick) School of Veterinary Studies

Farm Animal Practice

Newsletter August 2022

The year seems to be flying in and nice to see combines out in the fields already. Hopefully some rain is in the forecast ahead to keep the grass growing. This month Jane gives us a timely reminder about Lungworm in cattle and Tom talks about the use of teaser tups.

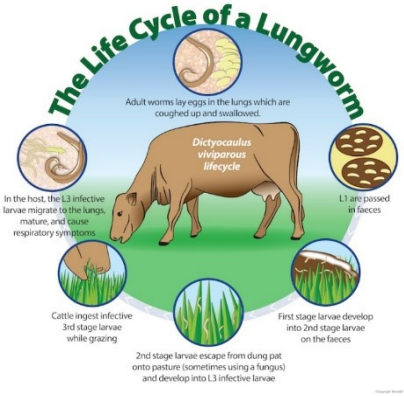
Lungworm in Cattle

Lungworm is a condition seen all too frequently in cattle, and while youngstock who have not acquired appropriate immunity are most commonly affected, adult animals can also be affected. Outbreaks usually peak towards the end of the summer but can be unpredictable and **we have already seen deaths attributed to lungworm in the practice this summer.**

The cost of disease is significant, estimated to be £50-100/beef cow and £140/dairy cow, attributed to; deaths, reduced growth rates, reduced productivity and increased barren rates.

Clinical signs of disease include; coughing, increased respiratory rate, extended neck stance, weight loss and reduced milk yield.

Cattle are affected by ingesting larvae {L3} from the pasture.



Pasture grazed the previous season should have a low lungworm burden as larvae tend not to survive the winter but carrier animals can be a significant source of infection so animals of differing immunity should not be mixed and naïve animals should not follow on from older animal. These carrier animals however play an important part in herd immunity as they shed low levels of eggs, and this exposure helps boost natural immunity.

Immunity to a patent adult infection last around two years while immunity to the larval challenge only lasts for a few months. Therefore, animals who have not had the opportunity to boost their immunity and are then re-exposed can suffer from reinfection syndrome due to the sudden larval challenge.

Diagnosis of lungworm can be difficult as clinical signs can occur 15 days after infection while diagnostic tests such as faecal or blood sampling may not be positive until 28 days. Lung washes (BAL) can be used in individual animals to detect adult worms.

F arms with a history of disease should consider vaccination as relying on anthelmintic treatment can be risky and prolonged use can contribute to the development of resistance. A full course of vaccine (Huskvac) should ideally be given before the first grazing season. Two oral doses are given four weeks apart, this must be completed two weeks before turn out. In high-risk areas a booster before subsequent turn out should be considered but this is often not necessary if adequate natural immunity is acquired. It is critical vaccinated animals are not treated with long acting anthelminthics at turn out and have the opportunity to infect themselves at pasture to boost their immunity. If a long acting anthelmintic is used to cover the entire first grazing season it should be assumed these animals are naïve and the vaccination program should be put in place before the second grazing season.

Practical points to consider:

- Now is the time to look out for clinical signs of disease in groups of grazing animals.
- In order to achieve appropriate protection before turn out in the spring, vaccination programs need to start 6 weeks before expected turn out date.

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Teaser Tups

Tupping season is once again on the horizon and now is the time to start preparing.

A compact lambing period is beneficial for flock health and productivity in that ewes and lambs are at similar stages and therefore easier to manage. Using vasectomised teaser tups is an easy and effective option to achieve this in your flock.

The ram effect:

The "ram effect" is a hormonal response in ewes brought about by the sight, sound and smell of a tup. Ewes normally have a "silent heat" 3-4 days after being introduced to the tup, followed by a normal heat 17-25 days later. The silent heat is usually not fertile and without using a teaser tup, most ewes will not become preganant in the first 3 weeks of mating. Using teaser tups allows ewes to start cycling before the breeding tups are intoduced, giving more lambs in the first 3 weeks of the season. Ewes should be kept at least one mile apart from any tups for a minimum of one month before introducing the teaser to maximise the ram effect.

The procedure:

The best candidates for teasers are healthy shearling tups with a proven libido and strong male characteristics. The procedure involves surgically removing the spermatic ducts from both testicles often under light sedation. This way, the tup retains his testosterone production but is not capable of getting ewes pregnant. ***The surgery should be carried out at least 6 weeks before being intorduced to the ewes to ensure they are no longer fertile.***

The protocol:

The teasers should run with the ewes for around 12 but no longer than 14 days at a ratio of one teaser to around 100 ewes. The teasers are then swapped for the breeding tups at a ratio of one tup to 20-30 ewes. This lower ratio is recommended as the tups will be required to serve more ewes in a shorter period of time. Teaser tups should not be left to run with the ewes during tupping as they present competition for the breeding tups. The ewes will undergo two peaks of ovulation at day 18-26 after teaser introduction, resulting in two peaks of lambings around 6-8 days apart.

Day 0: Ewes kept away from sight, smell and sound of any tups

Day 30: Teaser tup introduced to ewes

Day 42: Teaser tup swapped for breeding tups

Although teasers can be purchased already vasectomised, it is generally more cost effective to use home-bred tups and has the additional benefit of avoiding the risk of introducing diseases and resistant worms into your flock.

We are able to offer tup vasectomies carried out at the Farm Animal Hospital for a reduced fee. Please contact the farm animal practice for more information or to book in.

Client meetings

We are looking forward to finally arranging a face to face client event. Dates are still to be finalised, but likely late September. This will include Responsible Antibiotic Use training to meet accreditation scheme requirements.

Further details will be sent out once venue and date have been confirmed.

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