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Welcome to your Farm Newsletter for November/ December of 2022!

In this issue we look at the ongoing issue of Antimicrobial Resistance (AMR) and how to take steps to reduce the use of antibiotics in farm livestock. Find out what areas of assessment you need to consider and whether it is a viable option for you.

We also tackle how you can prepare for the lambing period, listing out key factors that can lead to a successful season and increased productivity. It includes everything from selection of ewes to a list of essential lambing equipment so take a look and see if you've ticked everything off.

Please let us know what you think of these topics and any others you would like us to cover in upcoming newsletters.

Get in touch at reception@forthvalleyvets.co.uk.

See you next time,

The team at Forth Valley Vets

### In this issue:



## Reducing antibiotic use in farm livestock:

While farmers and the veterinary profession have taken a leading role in the responsible use of antibiotics, there is still room for improvement, especially with the ongoing threat of antimicrobial resistance. We list out assessment areas that can lead to a reduction in antibiotic use on your farm and how it could be achieved with help from a qualified farm vet.



# Essential preparation for the lambing period:

We dive into the many key factors that can separate a successful, productive lambing period from a tough one, allowing you to make the necessary preparations and ensure you have everything covered off.



Antimicrobial resistance (AMR) has become headline news throughout the world over the past few years. It has even reached the point that human medicine is being affected to such a degree that lives are at risk. The reduction of andibiotics in human and animal populations is therefore of paramount importance and we need to play our part now before the situation gets any worse.

Since penicillin was discovered by Sir Alexander Fleming in 1928, antibiotics have revolutionised our healthcare to such an extent that human and animal medicine practices became heavily dependent upon their availability. New antibiotics have been continually developed, and this has masked the underlying spread of AMR.

Farmers and the veterinary profession have also taken a leading role in the responsible use of antibiotics in livestock for many years. RUMA (Responsible Use of Medicines in Agriculture) was formed as a nonprofit organisation in 1993.

RUMA consisted of 23 separate organisations across the UK livestock sector and was among the groups that welcomed and supported the 5-year UK AMR Strategy, which was launched on 10 September 2013. As a result of this strategy, antibiotic use in farm animals dropped by 35% between 2013 and 2017 and the levels are continuing to fall.

However, there is still room for improvement, and this has been accelerated by farm assurance schemes such as Red Tractor who have introduced stricter rules regarding antibiotic use and have been backed by processors and retailers who want assurances regarding the further reduction of antibiotic use on farms.

The UK Government unveiled a new target for antibiotic reduction in food-producing animals of 25% between 2016 and 2020. New objectives are due to be set for 2025.



The dairy industry has effectively demonstrated that a significant reduction in the use of dry cow antibiotics can be achieved by monitoring cell counts prior to drying off to ensure that only those cows with udder infections are treated. Furthermore, there is increasing evidence that those cows that are not infected are adversely affected by the use of antibiotics due to damage to the protective microbiome within the udder.

Similar positive changes have been seen within sheep welfare in the move towards EAE vaccination, as well as the use of Footvax, instead of an over reliance on antibiotic therapy.

The basic steps required for reducing antibiotic use on a livestock farm not surprisingly rely on establishing a reduced level of disease within the herd or flock. This reduction in disease levels requires involvement from your farm vet to set about a structured plan that will identify the areas where your farm is vulnerable to disease and devise an action plan to address the issues. The following areas should be assessed:

- An audit of antibiotic usage on the farm and a breakdown of the main diseases and age groups of animals treated
- Cessation of the use of antibiotics as a preventative measure in anticipation of a disease problem e.g. antibiotic dry cow therapy when there is no active infection in the udder
- Accurate diagnosis of the causes of disease (e.g. pneumonia, mastitis) by taking samples for laboratory analysis
- Understanding the role of management in the prevention of specific diseases
- What is the role of other factors such as housing environment, nutrition and genetics in the disease process?
- Are there any underlying factors or diseases which might make the herd more susceptible to disease e.g. Johnes disease or Bovine Viral Diarrhoea virus (BVDV)? If this has not been established, then a herd screen should be arranged for these debilitating background infections and work with your vet on an action plan to reduce their impact
- Assessing whether additional precautions such as vaccination could help prevent disease. This requires an accurate diagnosis of the bacteria or viruses which are responsible

Unless these questions and factors are addressed any reduction of antibiotic use may be ineffective and possibly have untoward consequences to the health and welfare of the animals.



The success of the lambing period can often be affected by several factors, some of which need to be considered or put in place months in advance. Making yourself aware of these factors can often lead to increased productivity for the year ahead.

### Lambing equipment and drugs

Before the busy lambing season starts, all essential equipment should be obtained:

- Lambing ropes (2 leg ropes and one head rope or lambing snare)
- Prolapse retainers/harnesses
- lodine solution
- Needles and syringes
- Thermometer
- Stomach feeding tube and syringe
- 40% glucose (dextrose) solution
- Calcium borogluconate solution
- Twin lamb oral remedy for ewes
- Colostrum supply
- Electrolyte sachets
- Lubrication
- Gloves and soap
- Surgical scrub
- Sterilising solution for equipment/feeding tubes
- Disinfectant for floors/walls/surfaces
- Hot water supply
- Warming box for lambs
- Sufficient number of lambing pens/isolation facilities
- Medicines on advice of vet including antiinflammatory drugs and antibiotic
- Phone number of vet for any temporary staff
- Recording system for lamb and ewe losses, medication given and any notes about ewes. Record keeping is very important so analysis can be carried out on areas where losses occur, and measures put in place to improve productivity

#### Selection of suitable ewes/lambs

When making your initial selection, choose an appropriate breed for the husbandry system (indoor or outdoor), time of year (early/late), climate, ease of lambing/good mothering.

All ewes should have been screened for dental problems and healthy udders, and any that had a prolapse the previous year or had chronic/recurrent foot problems should be culled.

### Selection of suitable tups

Likewise, choose a suitable breed for climate, husbandry system, ease of lambing (especially for tupping ewe lambs). Annual fertility testing prior to use is also essential. Fertile tups help to achieve the tightest possible lambing period. A tight lambing period makes all other factors (such as feeding, timing of vaccination, hygiene procedures, staff levels) easier to manage.



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#### **Nutrition** and stress

This can be based on the results of scanning (at around 70 days of pregnancy) and splitting into groups that are carrying single lambs, twins etc. Ewes carrying triplets, for example, will require supplementary feeding sooner than those carrying twins. It is also necessary to body condition score the ewes within these groups to ensure they fall into the recommended scores for the period of gestation as an indicator of correct nutrition.

	Hill Ewes	Upland Ewes	Lowland Ewes
At weaning	2	2	2.5
At Tupping	2.5	3	3.5
Mid-pregnancy	2.5	3	3.5
At lambing	2	2.5	3

The results of forage analysis and the advice of a nutritionist from the feed company used would also be ideal.

Furthermore, it is recommended that blood sampling is carried out on a selection of ewes pre-lambing. The reason this is important is to assess the protein intake and energy balance at a stage when something can be done about it.

A representative sample of ewes (6-12) should be sampled 3-4 weeks before lambing approximately 4 hours after their last hard feed. Beta-hydroxybutyrate levels of over 1.1 mmol/litre would indicate insufficient dietary energy. The majority of lamb deaths around lambing time (often 15% of all lambs) are related to poor viability and poor colostrum quality; secondary to poor ewe nutrition in the last third of pregnancy.

Trace elements and minerals can also be checked at this time if there is any reason for concern from the previous history of the flock.

In terms of stress, this will cause increased losses especially through reabsorption early in pregnancy. Ewes must always be handled quietly with the minimum amount of stress and during favourable weather conditions.

