Last spring a research study into joint ill was carried out by the SAC Veterinary labs. The aim was to identify the causes of joint ill and to investigate the pattern of resistance of antibiotics to the causal bacteria. There were some interesting findings which may make you look at your joint ill cases differently.

Joint Ill Diagnoses By Flock

Facts that were recorded in the study included:
- *Streptococcus Dysgalactiae* was isolated in 2/3 of cases.
- 87.5% of *S. Dysgalactiae* lambs had infection in two or more joints.
- 25% of *S. Dysgalactiae* lambs had infection in the joint at the base of the skull.
- When a different bacterium was isolated, 53% of the lambs had another problem identified at post mortem examination such as liver abscesses or pneumonia.
- Response to treatment in flocks diagnosed with *Strep. Dysgalactiae* was very poor.

Resistance to antibiotics varied from 0-88% depending on the drug.

The useful information that can be taken from this data is that in most cases *S. Dysgalactiae* is the cause of the joint ill. A third of joint ill cases (those not caused by *S. Dysgalactiae*) will be prevented with good colostrum intakes as is the case for watery mouth. A *penicillin* antibiotic is the best antibiotic to use for Strep joint ill.

The course of antibiotics needs to be 7 days to completely kill the bacteria. A few days of injections until you can’t catch the lamb easily often results in the bacteria flaring up again and you have a permanently lame lamb. The bacteria causes irreparable damage to the joints very quickly so the key to successful treatment is to catch the cases early and to prevent joint swelling at the beginning of the pathology by using an anti-inflammatory such as Finadyne or Metacam.

There are a significant number of lambs that won’t get better. The risk of exposure to lambs is high as there are many sources of *S. Dysgalactiae*:

- in the birth canal and milk of some ewes
- on the teats of ewes
- on shepherds’ hands
- on feeding bottles, teats and tubes
- on taggers, ringers and equipment
- in the environment, it survives in a dormant state in dry straw!

It can attack the lamb from many directions:

- through the mouth
- nose
- navel
- skin from castration
- docking
- tagging
Preventive antibiotics are not useful. When would you give the injection to prevent disease—at birth, housing, castration, tagging, docking?

Our advice in flocks where we see outbreaks of joint ill is to ensure:

- good colostrum uptake in all lambs
- to pay attention to hygiene at key points in the lamb’s life
- identify the risk factors on the farm.

Common issues we see are:

**Not disinfecting bottles and tubes between lambs**: Hot water and a disinfectant system for all feeding tubes is invaluable for every lambing shed.

**Castrating, tagging, docking on wet days or with contaminated equipment**: Swabbing ears with surgical spirit when tagging, using clean equipment that is disinfected regularly and wearing gloves whilst keeping the lamb’s skin as dry and clean as possible all make a difference.

**Environmental factors in lambing sheds allowing straw to become damp**: This is one of the scenarios where preventive antibiotics can be useful for Strep joint ills, for instance in wet weather where a certain shed or pen gets wet the lambs that go through that area could be given a long acting penicillin injection. This shouldn’t be all the time, but on a risk basis.

Overstocking ewes in lambing sheds: The aim is a lying area of 1.2- 1.4 m² during pregnancy and 2-2.2 m² for ewes with lambs.

Insufficient individual pens where contamination builds up: Research has shown that by the time 10 ewe and lamb units have gone through individual pens they are highly contaminated with many bacteria, maximising individual pens is important. Pens are best if completely cleaned out, dried, and re-bedded. If this is not possible lime or anti-bacterial powders and lots of dry straw on top of existing bedding is better than some straw on top of a soggy dirty mess.

**WORMING EWES AT LAMBING TIME**

The main aim of worm control around lambing time is to minimise the future contamination of pastures by eggs passed from the ewes. The immune system of the ewe is under a lot of pressure in late pregnancy and early lactation meaning some ewes fail to control the amount of worm eggs they pass. These eggs hatch and develop into infective larvae when the weather conditions are ideal, and this leads to disease in lambs later in the grazing season. This increase of worms passed by the ewes is called the ‘peri-parturient rise (PPR)’, it can be controlled by dosing ewes around lambing time.

Our advice is that lambing time is the only time where we need to consider worming ewes. However, with the problems of anthelmintic resistance we are seeing blanket treating all ewes is not ideal and will only make our resistance problems worse in the long run. Some factors to consider when you are worming your ewes at lambing time are:

- **Worm faecal egg output is much reduced in well fed ewes in good condition**: This means well fed ewes in the correct BCS don’t need worming. It also means that their lambs won’t have the same level of worm challenge later in the grazing season.

- **The drugs that are resistant on your farm in the lambs in past years will not work to reduce this PPR**: The choice of drug needs to be tailored to your farm. Treatment options should be a compromise between reduction in pasture contamination, and avoiding high selection pressure for AR.

- **SCOPS currently recommend two possible options when treating ewes**: Leave a proportion of the ewes untreated. It has been suggested that leaving around 10% of the flock untreated will be sufficient to provide a large enough dilution effect to delay selection for AR strains. There are no hard and fast guidelines as to how many ewes to leave untreated, but a sensible suggestion would be to treat those ewes whose immunity will be lowest.
  - Gimmers and young ewes
  - Ewes nursing twins and triplets
  - Ewes in low body condition

- **When using long-acting formulations, particularly with moxidectin, treat early in the post-lambing phase before immunity is fully restored**: Using long acting clear wormers does stop the output of worms by the ewes very effectively, unfortunately it also interferes with the ewe resuming a good immunity during the grazing season. Using these long acting wormers is not recommended year on year, such management will only cause more resistance.

- **This year the fluke season has been longer with sheep still picking up fluke in the new year so a flukicide dose may well coincide with the worming dose.**

Phone and speak to one of the farm team to discuss a programme for your flock in terms of which drug to use and when.
SELECTING BEEF HEIFERS FOR BREEDING

Your heifers are the lifeblood of the herd and a valuable source of new maternal genetics, they are also a significant investment whether homebred or purchased. We have put together some questions that are relevant in selecting your breeding heifers and managing that investment well.

**Is she well enough grown?**
Heifers that are 60% of their mature weight at bulling are much more likely to be cycling and fertile, continue to grow out into cows and be mature enough to calve easily. This growth will be influenced both by genetics and management.

**Is she healthy and free from diseases that could affect her breeding potential?**
BVD, Lepto and IBR are the diseases which will affect fertility most on your farm. A control plan for these is fundamental in preventing potential disasters. When purchasing heifers TB and Johnes are also well worth considering.

**Has she good maternal traits?**
Will she milk, be docile and calve easily? Dairy bred heifers will tick these boxes, but many don’t have the conformation, breed type and health status we need in our beef herds. Robustness, longevity and the fact that a beef bull tends to be used on the portion of the dairy herd that is less fertile or has disease issues means that beef bred animals that may be less milky are always a consideration.

**What bull is best to put her in calf to?**
A small calf without extreme muscling is always going to be easier calved. The size and muscling of a calf produced by a crossbred heifer can’t be predicted by just looking at her. She could breed like her dam or sire.
Many pure-bred bulls will have calving ease figures available. Select a low calving ease figure with a high accuracy (>60% accuracy). This will give a short gestation and a low birth weight calf (N.B. maternal calving ease figures are not an indicator of calf birth weight - they indicate the ease of calving of the daughters of the mating.)
A female calf is smaller than a male so sexed semen is an option to consider for heifers.

**Is she fertile?**
Heifers that were born from fertile dams and that are well grown are likely to be more fertile. Home bred heifers that are born first in the calving period are obviously going to be from cows that got in calf quickly and are likely to be more fertile. Freemartins in the beef herd are less frequent than in the dairy herd but up to 7% of beef pregnancies are twins and therefore have the risk of being freemartins. It is worth remembering that not all twin pregnancies calve 2 calves, a good proportion result in one calf being reabsorbed. This means not all non-breeders have been born as a twin. (A freemartin is a heifer born a twin to a bull calf, >90% of these heifers are non-breeders)

**Is she likely to calve easily?**
Calving ease is influenced by factors such as body condition at calving, calf size and conformation and cow pelvic size and shape.

Body condition should be 2.5 at calving, nutrition plays the biggest part in achieving this target. The calf size and conformation are directly influenced by the genetics of the dam and sire.
Pelvic area measurement is a useful tool to predict the likelihood of a difficult calving. A pelvimeter is an instrument with which we can measure the pelvis, calculate the pelvic area and predict ease of calving. This is best done at 12-18 months of age to be most accurate.

We believe that vet prebreeding assessments are invaluable in helping you answer many of these questions. An annual prebreeding visit could include a pelvic measurement of your 12-month-old heifers and a check to make sure they are not freemartins along with an examination of the older heifers before they go to the bull to ensure they are cycling.

Phone and speak to one of the farm vets if you are interested.
Fluke Treatments for Cows at Turnout

The major source of liver fluke infestations this next summer/autumn will be from fluke eggs passed by sheep and cattle which are currently carrying an adult fluke burden. For cattle that have been housed for over three months all the flukes they are carrying will be adults and should be killed by an Albendazole drench (e.g. Albex or Tramazole 10%). Even if cattle have been treated after housing (e.g. with Trodax or Closamectin pour on) it would be worthwhile checking a pooled dung sample to see whether there is a fluke burden. By ensuring that cattle and sheep are not carrying adult flukes in spring the fluke challenge for the coming year will be reduced.

For more information about fluke control in cattle and sheep please speak to one of the farm vets.

Worming Options for Youngstock After Turnout

It may seem hard to believe but eventually the land will dry out, grass will start to grow and ‘turnout day’ will be upon us!

First season grazers will be turned out with no immunity to gutworms and, unless vaccinated for lungworm with Huskvac, totally susceptible to lungworm. To keep animals healthy and maintain growth rates, various worm control strategies are used to reduce the exposure to worms (e.g. use of clean grazing) and to control worm burdens while at the same time allowing cattle to develop an immunity using either pour-ons, injections or boluses.

To discuss which product may be most appropriate and for a quote, please contact the surgery. We have summarised some of the more popular products with treatment protocols below.

**Panacur bolus:** For cattle 100 - 300kg, single application gives up to 20 weeks cover. Approximate cost £10/bolus

**Autoworm bolus (First Grazer and Finisher):** For cattle 100 - 400kg, pulse release every 3 weeks of 5 - 7 doses of wormer, single application. Approximate cost £14 - £16/bolus.

**Cydectin 10% Injection:** Single injection administered into the base of the ear to give 120 days protection. Approximate cost £3.50/200kg animal.

**Dectomax Pour-on:** 2 treatments at turnout and again 8 - 10 weeks later. Approximate cost for a single dose for a 200kg animal 80p.

**Animec Pour-on:** 3 treatments, 3, 8 and 13 weeks after turnout. Approximate cost for a single dose for a 200kg animal 20p.

For more information on worming at turnout, please speak to a member of the farm team.

Leptavoid H Supply Problems

We have been informed by MSD (the manufacturers) of a likely shortage of Leptavoid H this spring due to batch failures during the latest production runs. We currently have plenty of vaccine in stock but are likely to run out over the next month. We would encourage anyone who is planning to vaccinate this spring to secure their vaccine in good time and in particular if taking the first dose for replacement heifers to make sure you order enough to give the second dose at the time of the original order.