



After a rather non-existent summer we were treated to a warm, dry autumn which enabled many people to delay housing. The Farm Animal Practice team have been busy with synchronisation programs and scanning cows. We can hardly believe that the festive season is fast approaching and it is time for the winter newsletter of 2015. In this edition we would like to welcome Fraser Murdoch, our new lecturer, Andy ponders on why we should be bothered by drug residues and James and Alex discuss the merits of data recording in both sheep and beef herds.



On behalf of everyone at the Farm Animal Practice we wish you a very Happy Christmas and New Year!

Fraser Murdoch joins the Farm Animal team

Fraser graduated from the University of Glasgow Veterinary School in 2003. After graduating he returned home, close to the family farm in Morayshire, to work in private mixed practice for nearly 5 years, with a year's sabbatical which included locuming in New Zealand. In 2008 he commenced a residency in Production Animal Health and Management at Murdoch University in Perth, Western Australia. Although the residency covered all production animals including camelids, Fraser's focus was primarily sheep and goat work.

During his residency Fraser undertook a number of research projects looking into novel pain relief for sheep and treatment of Pink Eye in sheep feedlots. He extended the Pink Eye project and is now completing a PhD on the subject. Fraser successfully gained Membership of the Australia and New Zealand College of Veterinary Scientists in Sheep Medicine and is now an RCVS Advanced Practitioner in Sheep Health and Production.

Prior to starting at the Royal (Dick) School of Veterinary Studies, Fraser worked for the University of Glasgow where he was involved in teaching and provision of clinical services within the farm animal team and anatomic pathology group. Fraser's main interests lie within the health and management of sheep and goats and he is looking forward to building working relationships with the Farm Animal Practice clients.

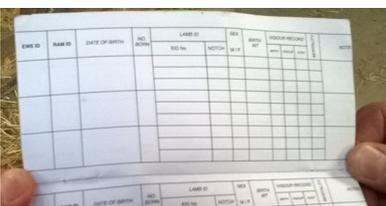


Outside of work Fraser currently lives near Stow with his wife and faithful Labrador. In his spare time he continues to seek out new adventures and culinary delights in the far flung corners of the world and attempting to build upon his language repertoire.

Data recording in Sheep flocks

Make your vet work harder for you; record production data!

Recording production data from your flock is a very useful tool to highlight problem areas which might be otherwise missed- you can then challenge us to sort the problem out! For instance recording scanning percentages, lambing percentages, weaning percentages and lambs sold per ewe put to the tup can indicate where lamb losses (and thus lost profits) are occurring. Equally weighing lambs at regular intervals can point out where suboptimal growth rates are occurring. It's not even necessary to weigh all lambs- a randomly selected 10% would do. Weighing can be made easy, and accurate, by using an electronic eartag reader and weigh scales, which then allows targeted selective worming treatment which reduces wormer use (and thus cost). However the high-tech approach is not necessary: a blackboard in the lambing shed with tally marks for each lamb born and a separate tally for lambs dying each day can show what neonatal death rates are and how they vary throughout lambing.



This pocket lambing book allows lamb birthweights and lamb vigour at birth and whether the ewe needed assistance to be recorded. This allows selection of ewes which don't need assistance and ewes and rams which give vigorous offspring which are less work at lambing time!

Lamb losses	Lamb growth rates	Ewe longevity
Scanning %	Date at which 50% lambs born	Replacement rate
Lambing %	Weaning weights & date	Number of voluntary culls
Weaning %	Date at which 50% lambs sold	Number of involuntary culls (and reasons)
Sale & retention %	Date at which 90% lambs sold	Ewe deaths (and reasons, when known)

This table shows some of the information which it is useful to record, but these are only starting points. Feel free to discuss ways of recording data and how to put it to good use in your flock with any of the vets.

Data Recording in Beef Herds

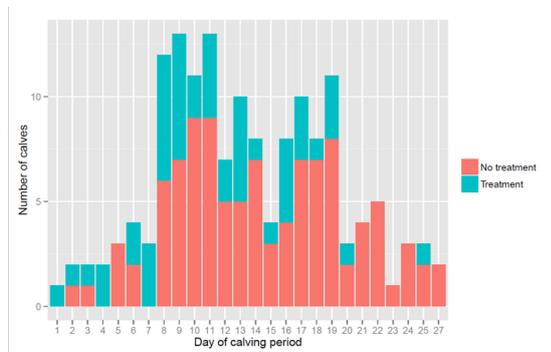
Whilst entering data into a spreadsheet is never at the top of the priority list, high quality data recording on beef units is essential to determining whether changes to the production system are having the intended effect. Whilst tick box exercises may help with farm assurance, they do little to improve the bottom line and hence data should only be collected if it is going to add value. **With this in mind what data is worth collecting and why?**

Body Condition Score (BCS): Feed will be one of the predominant variable costs in any livestock system. Whilst over-feeding cows is a waste of money and can potentially lead to difficulties at calving, under-feeding is of course just as harmful. Both cows that are too thin (BCS <2.5) or too fat (BCS >3.5) will struggle to cycle and conceive and have difficulty calving. At the very least, assessing BCS at housing will allow cows to be assigned to appropriate feeding groups and hence manage feed efficiently. Repeating BCS measurement during the housing period will allow cows to be moved between feeding groups accordingly and/or changes to the ration made as required. Recording this data in a useful format (e.g. a spreadsheet with the date, cow ID and BCS score) will allow the condition of cows to be compared on the basis of age, genetics or feeding/grazing history and hence inform decisions to optimise diet and management in the future.

Calving records: Registering births on CTS can be frustrating, however it's not just a legal requirement, having accurate birth dates allows the calving pattern to be examined. This can be used to troubleshoot problems with fertility in the previous breeding season e.g. it will flag up whether cows were cycling at the start of the breeding season (slow/delayed start to calving) and hence can inform nutritional management after calving. Records of assisted calvings and WHY the calving was assisted are key to informing decisions on genetics and nutrition to minimise costly interventions.

Treatment data: It can be surprising how much low levels of disease can drag on growth rates and profitability. Unless diseases such as scour, pneumonia and navel/joint ill and the treatments used are recorded, the cost of these diseases can easily be missed.

Knowing how much of a problem these diseases are forms an important component to the cost-benefit analysis as to whether a vaccination or control programme is worthwhile. What's more, this data can be combined with the calving records (see graph) to determine whether disease problems are clustered within a particular group of animals or during a particular phase of the calving period.



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Growth rates: Arguably one of the most important pieces of data. Whilst few units will weigh calves at birth, weighing calves at 100 days and at weaning is not just for the pedigree breeder. These metrics give an assessment of both the "milkiness" of the dam and genetic potential of the calf and can be used to select heifers from dams with good maternal traits and in herds where matings are recorded or artificial insemination is used, the performance of different bulls can be compared. Combining growth rate information with the calving records can also allow metrics such as live-weight weaned per 100 cows put to the bull or per acre to be calculated – both important metrics of overall productivity.

Abattoir data: If selling animals straight to slaughter, reviewing the killing data is essential. At a basic level, the meat hygiene feedback will provide important data on the levels of disease such as fluke and pneumonia and hence inform treatment and control strategies on the unit. This can also be related back to the weights, grades and age at slaughter to understand how much these diseases are affecting carcass quality and growth rates. Plotting age at slaughter and carcass grades to understand what proportion of carcasses are hitting specification will also help to identify whether returns could be improved by concentrating on a small number of animals where growth is suboptimal or that grade poorly or whether the performance of whole batches could be improved.

Drug Residues– what's the big deal?



During the late 1990's the vulture population of India, Pakistan and Nepal declined by 97%. Why is that important? In those countries there is no organised system for the removal of fallen stock, so vultures provided an essential carcass disposal service. With no vultures to clear up, the deadstock provided food for feral dogs causing a population explosion. The feral dogs spread rabies and there was an increase in human rabies cases which cost thousands of lives each year. The cost of vulture extinction is estimated at 1.5 billion US dollars per year in India alone. As well as the increase in rabies in humans there was also an increase in anthrax and water borne disease at the same time.

The cause of this disaster was use of an anti-inflammatory called dichlorfenac, (similar to ketofen) by vets and farmers, which was causing acute kidney failure in the vultures. None of those vets or farmers realised that their actions were contributing to the deaths of children. We don't have vultures in Scotland but our actions may still have unintended consequences so we should always endeavour to use veterinary medicines and farm chemicals responsibly.

The Dick Vet Farm Animal Practice supports initiatives in India to restore the wild vulture population and prevent the resurgence in use of dichlorfenac in farm animals.

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