

# farm news

## Understanding the links between feeding and fertility in dairy cows

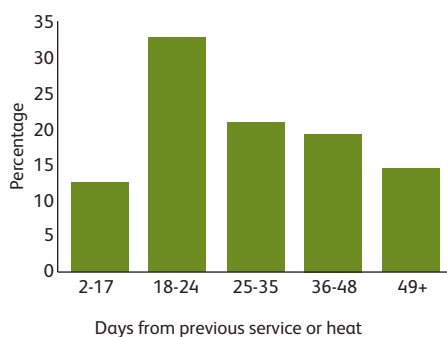
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It is widely accepted that maiden heifers have better fertility than milking cows, but why?

Genetically, they are the same, so it must be related to management. It is easy to assume that it is something to do with milk production but, in actual fact, it is related to the dry matter intake (DMI). Increased DMI drives milk production but also increases the rate of blood flow through the organs, especially the liver. The liver is responsible for metabolising (breaking down) the sex hormones – oestrogen (E2) and progesterone (P4) – so dairy cows have lower levels of circulating hormones compared to heifers. Low levels of E2 cause shorter periods of heat expression, making it harder to spot cows to AI. Low levels of P4 leads to increased early embryo loss and longer inter-service intervals (ISIs).

Service intervals



We normally target for >40% of return services to be 18-24 days after a previous service. However, the farm shown here serves over 20% of cows at day 25-35; some of this might be normal variation (recent research shows the range of ISIs is 15-30 days) but some of this will be early embryo loss due to insufficient P4.

Body Condition Score (BCS) is also closely related to fertility – absolute BCS at time of first AI and change in BCS from calving to 21 days in milk (DIM) are both significant factors. One American study with over 1100 cows showed that cows with BCS  $\leq 2.5$  had an average pregnancy rate of 40% whereas cows with BCS 2.75-3 had an average pregnancy rate of 48%. In addition, cows that lost  $\geq 0.25$  of a score had a reduced pregnancy of 25% compared to 38% for cows that maintained their BCS. Cows that lost condition also had a higher rate of

pregnancy loss – 9% compared to 6% in cows that maintained their condition.

The link between BCS and fertility is due to negative energy balance (NEB) – cows in NEB have smaller follicles leading to low E2 production which will present as cows 'not seen bulling'. Smaller follicles lead to smaller CLs, reduced P4 and small embryos which are unable to signal to the cow that they are in calf.

Cows that are fat at calving (BCS  $\geq 3.50$ ) are more likely to lose condition in early lactation compared to cows at the optimum condition of 2.75 – fat cows have poor DMI. These cows then take longer to get in calf, so are more likely to get fat in late lactation, and so the cycle continues! Transition management is key but management of BCS needs to start in late lactation.

# Keeping farm records up to date

## Sue Ivings QUALS



In recent months the Animal and Plant Health Agency (APHA) have been clamping down on incomplete results at TB tests.

It is an ongoing problem that not all animals listed on the current worklist are on the premises when the vet comes to carry out a TB test.

Currently, when submitting a TB test we can select an option of “not at location” for any animals that have been downloaded from CTS but have not been presented for testing. The APHA are now asking for all animals to be accounted for from the CTS download, meaning that evidence will need to be provided of

movement off-farm (e.g. death or sale) if your records are not up-to-date.

If the APHA believe that the animal(s) have not been satisfactorily accounted for, the farmer will be notified in writing of the discrepancy and asked to take action to resolve the issue. Until the discrepancy is resolved, a new test will be issued for the missing animals. Unfortunately, this may mean that your test goes overdue and penalties are incurred.

We will help where we can, but ultimately it is the farmer’s responsibility to ensure that all movement records are up-to-date and that animals are correctly tagged.

# Register of Mobility Scorers

## Carolyn Baguley MA VetMB CertAVP (Cattle) MRCVS



You may be aware of the new Register of Mobility Scorers (RoMS; [roms.org.uk](http://roms.org.uk)).

This is an independent, self-regulatory body which encourages the widespread use of standardised, independent mobility scoring conducted by trained and accredited scorers on UK dairy farms. The method used is the industry standard in the UK.

The aims of the RoMS are:

1. To improve the mobility of the UK national dairy herd by:
  - a. Providing standardised high-quality data on the mobility of cows on UK dairy farms over time.



- b. Improving the quality and accuracy of mobility score data provided to producers and their agents.
2. To be inclusive of, and reactive to, the mobility scoring requirements of all key stake holders in the dairy supply chain. To this end, the founding committee has representatives from the dairy farming, veterinary and foot trimming sectors.

Lameness is an important cause of poor welfare and economic loss in the UK dairy industry. To manage it, we need to be able to measure it. Scarsdale has four Registered Mobility Scorers – Oli, Carolyn, Jenny and Charlotte. Contact them at the practice for more information on mobility scoring.

## New Red Tractor Guidelines

### Oli Maxwell BVSc BSc (Hons) DipECBHM MRCVS



New guidelines for Red Tractor accreditation came into effect on 1<sup>st</sup> October. These guidelines now require an annual antibiotic audit for each dairy farm (which can be tied in with the herd health plan review), in line with national and global efforts

to reduce antibiotic use in both humans and livestock. We have several tools available to us to help with this task, which will not only help you comply with the new revised guidelines but also, we hope, help you target areas for improving disease control on farm.

We have a new tool which produces a report on how much of each antibiotic you have bought in the past 12 months and can categorise them into usage groups allowing us to see where you are using the most drugs.

This can help us work with you to address issues on farm and gives us focused targets for the Herd Health Plan Review at the same time, especially with regard to the Critically Important Antibiotics (CIAs).

The new Red Tractor guidelines for beef and sheep farms are less stringent, simply recommending that the highest priority CIAs are used as a last resort under veterinary direction. It’s still a good idea to monitor antibiotic use though, and we can produce the above reports for our beef and sheep farmers too.

Also, using our practice management software combined with a tool developed with the University of Nottingham, we are able to show dairy farmers how much antibiotic you are using per head of stock; information which we can then benchmark to show you whether you are using more or less antibiotics than average.

The amount of prior preparation that we need to do for your Herd Health Plan Review is greater than it used to be, so please remember to give us plenty of notice beforehand!

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