



Newsletter 2014, Q2

May 2014

COW TRACKS

Now that the grass is on the move and the sun is making more appearances, some milking cows are out at grass. Taking a moment to consider how your farm's cow tracks are performing could be time well spent....



Watching your cows' behaviour

Cows walk and stand with their heads down: if cows' heads are up, either on the track or in the shed, it is because there is not enough room. Remember cows have a definite hierarchy. Dominant cows set the walking speed of the herd. Pressure on the rear group results mainly in the lower hierarchy cows being affected, as they will not overtake more dominant cows.

Watch how your cows are using their tracks. What speed are unforced cows walking at? Are the cows using verges instead of the tracks? Are they walking in single file? Are there any raised heads during herding? Are cows jostling for position?

Tell-tale signs of cow track problems:

- High or rising lameness when cows are out at grass
- Increased levels of white line disease and/or sole bruising as a result of stone damage
- Water run-off causing puddles and streams to form in the track
- Bottlenecks at certain points along the length of the track
- Dual use of track for cows and machinery
- Poor track drainage

Track materials

Cows walk better on softer surfaces. However the gradient of the track, weather conditions and waste disposal are factors worth bearing in mind when deciding on what type of material to use. It is also worth remembering the abrasive property of concrete on hooves when cows are walking long distances. Track material should be free from material of a size and shape which can be trapped between the claws – any materials that are intended to be used for cow tracks should be screened. Examples of surface materials include oolitic limestone, woodchip and stone dust.

Further information (including the DairyCo "Cow Tracks") at <http://www.dairyco.org.uk/technical-information/animal-health-welfare/lameness>

What do we want from our cow tracks?

- Good cow flow and decreased herding time
- Comfortable tracks for the cows to walk on
- Minimise damage to claws
- Reduce field poaching and compaction
- Extend the grazing season as better field access
- Improve udder hygiene (cleaner cows)

Student survey:

What do you notice when you lift a cow's foot?

Is it the same as what someone else sees?



Take this online questionnaire to help us find out:

<http://goo.gl/579jcs>

This survey is part of a University of Edinburgh vet student's research project to see if farmers, vets and hoof trimmers are all noticing and diagnosing the same problems when examining cows' feet. It only takes 10 to 15 minutes to complete, and if useful results come of it, we will let you know. Any questions? Contact our student Kate Fink: k.fink@sms.ed.ac.uk. Thank you!



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Are high or low replacement rates the ideal for your herd?

There is always a lot of debate about the issue of culling dairy cows. The European viewpoint is that **low** culling rates are good news: it means that cows live longer, have greater productive lifetimes, produce more milk per cow per day of life, and are a positive indicator of cow welfare.

However the American viewpoint is more hardline: low culling rates are a sign of herds “standing still”. Higher replacement rates mean that genetic progress and herd improvement is faster. If the cost of culling a cow is similar to the cost of a replacement (which they currently are in 2014 in the US) and there are lots of heifers available, then surely it makes economic sense to swap an older cow with a fresh calved heifer?

Why is this of interest to UK dairy producers? The DairyCo website currently quotes the total rearing cost for an average heifer to calve down at 2 years 4 months old at around £1,090. This varies from £950 - £1,150 per heifer reared depending on the Age at First Calving. Given the current prices for good cull cows, the gap in the Herd Replacement Cost (cost of rearing replacements less the value of culls sold) is getting smaller.....

Knowledge is key to understanding and managing replacement rates in dairy herds. In the US, the main driver for herd replacement policy is the number of heifer replacements available to enter the herd. However in the UK, maintaining or even expanding herd size is often the main driver. So working out a plan of where the herd size should be is the first question to ask.

The next question is why cows are leaving the herd. The table below gives the **DHHPS average figures for reasons that cows were culled in 2013**:

	Reason	% of herd
Involuntary or forced culls	Infertility	5.6%
	Mastitis	2.7%
	Lameness	1.8%
Voluntary or selected culls	Yield	1.0%
	Age	3.7%
	Other	6.5%

This gives an average culling rate in DHHPS recorded herds of 21.3%. However it is not the headline figure which is of interest, but the breakdown of voluntary and involuntary culls.

The other issue is the number of involuntary culls that leave the farm with **no cull cow revenue** (ie. **Fallen Stock**). A study by Orpin and Esslemont in 2010 found that 5.3% of dairy cows were culled due to sickness, death, recumbency or casualty, with 2.5% due to deaths alone. Comparable figures from the USA show a 10% death rate.

Another way of looking at this is the number of cows culled in the first 30 or 60 days of lactation, and the aim is to keep this figure below 2%. Values higher than this would suggest issues with transition cow management and diseases in early lactation such as milk fevers and LDAs. NMR figures would suggest that the UK average culling rate in the first 100 DiM is closer to 5%.....

Key aspects to consider in managing replacement rates in UK dairy herds:

- **Is the herd at the correct size in terms of numbers?** ie. is the shed full to capacity? (Note that this does **NOT** mean over-stocked!). Economic analyses show that it is more profitable to have an occupied space compared to an empty space, due to the fixed costs involved.
- **Are cows being lost from the herd without receiving any income?** (ie. those cull cows with No Economic Value). If so, why?
- **How many cows are being lost from the herd for involuntary reasons (ie. forced culls)?** Identify why cows are “breaking” in the herd, and fix these issues first.
- **Then ask if it is more economical to keep a cow in the herd, or replace her with a new cow/heifer?** This will depend on current milk price, feed cost, is she back in calf, cull cow price, disease status etc.

Livestock Event 2014

We will again have a stand at the Livestock Event on the 2nd and 3rd July 2014 at the NEC in Birmingham. We will be in the Animal Health section – please stop by for a chat if you are coming along.