

The benefits of cow tracks in dairy farms

A Lancashire dairy farmer explains about the many benefits he has seen since installing a Catchment Sensitive Farming grant funded cow track

Lower Lune Catchment

Catchment Sensitive Farming Officer: Elizabeth Graydon



Dairy farming especially in the high rainfall region of North Lancashire can cause various problems associated with diffuse water pollution from agriculture. One is the poaching and compaction of nearby fields during the summer months from the twice daily traffic of cows walking to and from the milking parlour. This case study examines the many benefits of constructing a dedicated concrete track for the cows to use.

Lane House Farm near Lancaster is a family run all grassland dairy farm, milking 40 British Friesian cattle next to Beckerthwaite Beck and 500m from the main River Lune. In 2012 they applied for a CSF capital grant to construct 340m length of concrete sleeper cow track, associated fencing and constructed a drinking bay alongside the track. The track went through two fields nearest the farm yard which saw the most traffic. The project cost £19,000 for which they received over £9,000 in capital grant aid towards it through the Catchment Sensitive Farming project.



Issues before installation of cow track

Before constructing the track the two closest fields became extremely poached when the cows were turned out in the spring, this lead to muck and sediment running off the fields and into the watercourse. Compaction from this heavily trafficked land also exacerbated the rate of run-off into Beckerthwaite Beck. The cattle also paddled through and drank out of beck on the way to the parlour, increasing the sediment and bacterial loading of the beck from soil and manure.

Due to the problems with these fields, Mr Cornall was forced to house the cattle for an additional two months during summer 2012, buying in additional feed of 34 silage bales per months at $\pounds 23$ /bale to an additional cost of $\pounds 1,564$.



Benefits experienced following installation of the track and drinking bay

- Improved water quality the drinking bay prevented cattle defecating in watercourse, the track reduced the amount of poached soil washing into watercourse
- **Reduction in run off** better soil structure from less traffic increased the soil water infiltration rate.
- Increase in milk yield the drinking bay made the beck water cleaner and more palatable, so the cows drank more and were less thirsty when in the parlour
- Time saving the cows were quicker to/from parlour - over 1 hour of farmers time saved per day
- Easier to gather as they simply walk along the path no longer needed a good dog!
- Completely hands off journey back to fields – they simply opened the gate to track and the cows walked themselves back to the field



Mr Cornall has seen a quick pay back return on his initial investment of £9,500 for his CSF grant funded cow track, fencing and drinking bay in milk yields, silage production, sheep grazing numbers and in time saved, whilst also improving the water quality of nearby watercourses and would recommend installing a dedicated cow track to any dairy farmer

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- Improved soil structure fields were far less compacted and damaged which resulted in more grass growth – they took a 6 acre cut of silage for the first time ever in 2013 of 6tn/acre @ £40/tn = £1,440 of silage.
- Increased grass yield meant they could graze sheep on those fields for the first time
- Zero maintenance the track needed no maintenance or even scraping as cows walked continuously, did not stop and therefore did not defecate on track.
- Easy to lay the concrete sleepers were quick and easy to lay
- **Reduction in cow lameness** walking on the hard track was much better for the cows feet than a muddy field
- Reduced foot trimming costs some cows
 no longer needed foot trimming at all
- **Reduced flooding risk** the improved soil structure from less traffic and increased sward cover increased the soil's water storage capacity reducing flood risk to nearby roads, houses and fields.

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Catchment Sensitive Farming (CSF) is delivered in partnership by Natural England, the Environment Agency and Defra.

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