

Low-cost and flexible options to improve

# On the ri

Summer grazing means that cow tracks all over the UK are being put through their paces. What are the options for installing tracks or improving existing ones – on a budget or in a hurry? We spoke to a consultant and three producers to find out more.

text **Rachael Porter**

**N**ow is the time to assess your tracks – by inspecting them and watching your cows. “Your girls will soon tell you if your tracks are up to scratch,” says AHDB Dairy’s David Ball. “Watch how they walk – it should be with their heads down and at a steady pace, and without stopping. “If their heads are up, then they’re walking cautiously and picking their way rather than striding confidently. And if they’re not moving at all then there’s work to be done.”

The problem may not be the condition of the track – it could be its width or route. “So assess carefully – don’t spend money on laying a new top surface just to discover that you’ve only partially solved the problem,” he says.

If a track is not wide enough, for example, the dominant cows may be inhibiting cow flow and halting the herd in its tracks, literally. “If a dominant cow stops on a track that’s too narrow, timid cows will stop behind her – they’ll be too afraid to pass.” Ensuring that the track meets the minimum recommended width requirement for your herd size (see box), will improve cow flow.

Sharp turns in the track can also create bottle necks, as can steep gradients – particularly if the track is made from concrete sleepers, which can be slippery.

### **Regular maintenance**

More often than not stones and potholes are the issues that need to be addressed. That was certainly the case for Cumbria-based producer Gordon Tweedie. He has now installed astro turf on some of the cow tracks at his 312-cow unit.

The herd, a mixture of New Zealand Friesian and Jersey cows, is run on a New Zealand style system and requires easy access to strip graze the farm’s 110 hectares of grassland. Some of the tracks required maintenance work and Gordon had heard



pasture access and reduce lameness

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a lot about the benefits of astro and he's also seen it in use on neighbouring units. "There is a mixture of cow tracks on our unit – stone, concrete sleeper and earth. The stone tracks were getting worn with pot holes and some resurfacing was required. I decided to give astro turf a go. It's a cost-competitive option, particularly compared with installing concrete sleepers that are a little expensive now. But the sleeper-constructed tracks that we already have are more robust and require minimal maintenance," explains Gordon.

## Level surface

A contractor delivered and laid the turf – two 2.5-metre wide rolls, laid side by side and slightly overlapped in the middle of the track. "That part of the job was quick, but preparing the track for this top layer took some time. We had to fill pot holes with aggregate and make sure that the surface was level."

Gordon is pleased with the results: "The cows definitely walk differently on the astro-covered tracks. I don't have any immediate plans to install or renovate any more tracks, but I'd consider using astro again."

"Providing additional cushioning against stones and concrete, by laying second-hand astro turf on existing cow tracks, is becoming increasingly popular, according to Astrotracks.co.uk's Mike McCreath. His Dumfries-based company supplies astro turf, sourced from schools and other local authority sports facilities, to dairy units across the UK. "There are so many different grades of astro. It's important that producers use one that's tough enough for the job. Rubber- or sand-filled products are ideal. And they come, on the back of a lorry, in one continuous roll. The astro is extremely heavy and must be laid by machine. But once it's down it won't move – not even in high winds," he says.

The sand or rubber crumb, which is held in place by the artificial grass, means that it is free draining and it also cushions cows' feet against stones and concrete. "And this helps to further reduce the incidence of lameness. Cows walk comfortably and, therefore, more confidently on the astro."

Second-hand astro turf is extremely cost effective at between £1 and £1.25 per square metre and it is particularly popular with producers who have stone tracks topped with quarry dust and concrete sleepers, as it reduces the need for regular maintenance and sweeping.

Concrete sleepers are the way to go, if you're looking for cow tracks that are quick and simple to lay and require little or no maintenance. So says

## Cow tracks – design pointers

### Positioning:

avoid hollows, gullies and shaded areas. Free-draining and sunny positions keep ‘track damaging’ water away.

### Route:

avoid sharp turns to maximise cow flow.

### Width:

at least four metres wide, for up to 200 cows, and for every additional 100 cows add an additional metre.

### Camber:

essential for good drainage. Either ensure that the centre of the track is 20cm higher than the edges or create a slope – of at least 5% – across it. Concrete sleeper tracks stand proud of the ground and will drain freely, without a camber.

### Gradient:

no steeper than 12%, particularly on tracks with a loose woodchip or stone

surface. Take care with concrete sleepers on slopes – they can be slippery.

### Materials:

approximately 1m<sup>2</sup> requires a tonne of construction material. This will vary, depending on materials being used and subsoil type. Heavy clay, for example, requires a deeper base layer to ensure good drainage.



*Astro turf: add a top layer for cushioning*

*Stone track: a smooth, free-draining surface*

*Concrete sleepers: easy to lay and maintain*

Phil Asbury, a herd manager for Grasslands Farming, who oversees three spring calving herds that are based in the Cheshire area and comprise more than 780 cows.

The herds, three of six owned and run by the company, in Cheshire and Shropshire, all make use of concrete sleeper-base cow tracks – and with considerable success. The three units that Phil manages are all paddock grazed and, in total, have more than two miles of tracks, which are made up of more than 20,000 sleepers. Each sleeper is approximately 225mm wide.

“We lay them directly onto the fields – there’s minimal preparation work required. It’s quick and easy and they’re moveable too. Some of our units are on a 10- or 15-year contract, so the sleepers can be moved if the situation changes,” explains Phil.

### Easy maintenance

The only maintenance is a once or twice yearly sweep, if required, to remove stones. “The tracks are certainly easier to maintain than the sandstone ones that we have on some of our units. They require more regular repair and maintenance, particularly if there’s no camber on them.

“Water logging and pooling causes problems. But the concrete sleepers are free draining – the water passes through the gaps between them.”

He says that most the sleepers in use on his units came from Crewe railway station – most are old and some are new

seconds – ones with slight cracks or chips. “They’re between £5 and £6 each delivered and between £1.50 and £2 to lay. They’re more expensive than they used to be, but I think the ease of laying them and minimal maintenance makes it money well spent. And they’re moveable, reusable and potentially, have a resale value.”

### Stone-based construction

Ayrshire-based producer Robert Drummond has just finished installing an additional 1,400 metres of cow tracks, to add the 600 metres already in use on his 60-cow unit, close to Kilmarnock. “Poaching is a real issue for our spring and autumn calving herd. And the track we had only gave us easy access to about a third of our grazing land,” explains Robert.

“With between 1,400mm and 1,550mm of rainfall each year, things can get extremely wet. Not only was it taking its toll on the grass leys, but feet and udders were also getting dirty,” he says, adding that building more access tracks was something he planned to do gradually, during the next few years, as financing allowed. “But securing an environmental protection grant as good as covered the cost of the whole job – about 1,400 metres. So we started work in January and we finished at the end of May.”

His tracks are stone, covered with a layer of fine stone dust. “We dug down to a depth of between 200mm and 250mm. And added a membrane layer, which is a non-woven geotextile for

land stabilisation and reinforcement.” This was followed by a layer of heavy Scottish whinstone – to a depth of 250mm. And then a top layer of quarry dust – about 50mm – was applied. Both layers were compacted, well, with a vibrating roller. All the stone materials used came from a local quarry.

“The terms of the grant stipulated that dimensions of the track. It had to be four metres wide, but I’d have been happy with half that. And it also had to be made from stone,” adds Robert.

Cows are turned out to graze grass in a rotational paddock system from the end of March and now have multiple access to each 48-hour grazing block to avoid poached gateways.

“Tracks are sited mainly across slopes, open to prevailing wind to aid drying of surface, and there are no tight corners – to ensure good cow flow,” says Robert, adding that he’s considering adding a top layer of astro turf to heavily used tracks near the cow yard.

“Feet and udders a much cleaner. I’ve never had a serious problem with mastitis – I think some of that is down to genetics. “But the number of cases has been particularly low since the cows began using the tracks. And their feet are in better condition too. It was definitely money well spent.”

And he says that maintenance should be minimal: “We’ll just need to ‘grade’ it once or twice a year. This means running over it with a specialist scraper blade to keep the surface camber, which is vital to avoid water logging.” |