



Straw: a traditional bedding material that's becoming more and more expensive



Sawdust: another popular bedding material, but it's losing favour



Sand: the one that every cow wants, but it doesn't suit all systems



Paper-based: EnviroBed offers absorbency and good udder health

Bedding options need to lie well with price, availability, udder health and comfort

Paper, sand, sawdust or straw?

One bedding material that is paying for itself on a Shropshire-based unit is paper. More absorbent than sawdust, the switch to paper was just part of a thorough plan of action to tackle high cell counts. But it was a vital one, as CowManagement found out.

text Rachael Porter

A high somatic cell count was crippling the Hughes family's milk cheque. "The herd's average was up around at 300,000 cells/ml – well above the 250,000 cells/ml maximum set by our buyer Muller – and we were being heavily penalised," explains Alan Hughes, who farms in partnership with his sons Richard and John at Malt Kiln Farm, near Whitchurch in Shropshire. It was time to take action.

With help from the herd's vet – Tom

Wright from Cheshire-based Lambert Leonard and May – the Hughes set about tackling the problem once and for all. Milk sampling through NMR highlighted problem cows and further test on the samples identified, which bacteria were at the route of the high cell count. Close observation revealed that sawdust was causing milk and moisture to sit under the udder once the cow was lying down and exacerbating any efforts to get on top of the hygiene issues.

So improved and thorough drying off



Alan and Richard Hughes

protocols, better dry cow management and an improved milking routine were all key in reducing the count to today's 135,000 cells/ml. As was changing the 300-cow herd's cubicle bedding from 'soggy' sawdust to EnviroSystems' paper-based product – EnviroBed. This is more absorbent than sawdust and draws moisture – and the bacteria that thrive in it – away from the udder.

False economy

Alan took delivery of this bedding material for the first time in January 2010, and says he hasn't looked back since. We're really pleased with it and wouldn't use anything else now – not even if it were free. Our low somatic cell count means too much to us and we wouldn't want to risk a rise again. That would be a huge blow to the herd and

the business," says Alan, adding that son Richard, who takes the bulk of the responsibility for the milking herd, insists on nothing w the best.

And he means what he says. Alan was recently offered some lime ash to bed the cubicles, free of charge, but he declined the offer. "It may be free, but it would be a false economy if cell counts began to creep up again."

That said, he does use lime ash to bed the loose yards. But these are used for dry and calving cows – not milkers. "We're not willing to risk that – not for any amount of free bedding – however good it may claim to be. We've found something that works for our unit and our system and we're sticking with it."

EnviroSystem's Liz Russell is also delighted with the contribution that the bedding product has made to the good udder health of the Hughes' herd. Their success has helped to counteract some of

the negative PR surrounding it during the early part of the past decade.

"We did sell a lot of the product in the Shropshire area in 2003 and 2004, but back then it didn't meet producers' expectations on some units. In the early days it blocked slatted areas and made slurry so thick that it could be difficult to handle. But we don't get any complaints today," adds Mrs Russell.

Even spread

Alan says using a bedding dispenser is key to his success with the product as it ensures a thorough and even spread that's not easy to achieve when spreading this – or any other bedding material – by hand.

"The trick is to cover the cubicle with a level layer of the product. It's the only way to ensure that the cubicle remains dry and the mastitis-causing bugs are kept under control."

Suitable for cubicles, on mats and mattresses, loose housed and shallow-bed system, the product offers five times the absorbency of sawdust and 10 times the absorbency of straw, leading to cows kept drier and cleaner for longer, according to Mrs Russell. "It also offers a favourable pH of 7.4 along with the natural lime and copper content, which are unattractive to the growth of pathogenic mastitis-causing bacteria," she adds.

The Hughes' herd uses between six and seven tonnes of the product per month during the six-month housing period each year and Alan says that the cost is comparable with other bedding material, at £73.50 per tonne.

"But even if it were slightly more expensive, we'd still use it – results matter. Udder health and maximising our milk price is more important," says Alan. |

Bedding trends and options

Interest continues to grow in using sand as a cubicle bedding material, according to The Dairy Group's dairy husbandry consultant Brian Pocknee.

"And it would certainly be my first choice for improved mastitis, lameness and cow comfort, so long as slurry handling facilities could cope with it," he says, adding that with some investment that most could. But he appreciates that it's not for everyone.

"The rising cost of straw – and haulage – is driving some of the move towards

sand. But producers may have to move from an FYM-based waste management system to a slurry based one. And this requires storage for at least five months of waste. It's not all bad news if you have the correct soil type – heavy soil that allows you to dig a lagoon for storage. The cost of this would be relatively small compared to those farming on lighter, sandy soils that would require tanks for storage. The cost of that could be prohibitive," adds Dr Pocknee.

Lime ash is also growing in popularity.

This is produced by the power plant industry and should be wood/paper ash – not coal. It's alkaline and a good drying agent, so Dr Pocknee strongly advises producers to use it with caution and ensure that their herd's teat dip contains an emollient. "Like most of the products that are applied direct or mixed with the base bedding material, lime ash is a drying agent. So it's vital to keep the teats soft and supple to avoid damaging them. If you don't, it could be a case of out of the frying pan and into the fire."