

And so to bed...

Early planning is essential for a clean and comfortable cow cubicles

Need a change of bedding? What will be the best option for your unit this year? With straw and sawdust looking scarce, particularly in the west, we weigh up some of the different options currently available to producers across the UK.

Firm wheat prices and competition for bio-fuel production suggest that bedding straw prices will remain relatively high throughout the summer and coming winter.

And when each tonne of grain generates between £140 and £200 per tonne, there is little incentive to risk good ground preparation and planting of the following year's grain crop due to delay caused by having to prepare, bale and load the straw which would be worth, at best, £60 to £75 per hectare. That's the view of EnviroSystem's managing director Liz Russell.

"The Government is also supporting 'waste to energy' schemes. Wood by-products fit the criteria perfectly and so sawdust, shavings and other wood waste products will have to compete for supply, meaning prices will also remain firm," she says. "There is a finite supply of wood by-products in the UK and the extra demand means having to import."

So it looks as if producers hoping to secure some 'cheap' bedding – either straw or sawdust – for next winter are set to be disappointed.

And there's no room for skimping. "It's important to remember that, with milk prices at their current levels, emphasis should be placed on getting as much milk as possible in the tank as this has a greater impact on the farm profitability than cutting costs," says Mrs Russell.

Early planning

"Hygienic and consistent bedding has a huge bearing on the health status of housed cattle and on maintaining a high health environment. Early planning –

like now – so that changes can be made during the summer months to cubicles and other equipment such as mats or mattresses is essential. A dry, comfortable and clean cow will lie down more, stay healthier and produce more milk."

What bedding they'll be lying on depends on many factors, according to ADAS' Brian Pocknee. Those with straw yards will obviously be tied to straw, but there's a wider choice of materials for those with cubicle beds."

Wood shavings and sawdust are just two options: "But make sure that they're made from soft wood and ideally straight from the manufacturer – not from recycled wood. Shavings from recycled pallets, for example, may be cheaper but may also contain nails and staples," says Dr Pocknee.

"So look at the quality, not just the price. Buying the cheapest – if it contains metal and large splinters – could actually work out very expensive."

Wastepaper products

There are several wastepaper products on the market and one of the most well-known, EnviroBed, was developed over a seven-year period to ensure that it satisfied dairy producer requirements. Made in the UK from the short fibres produced in paper recycling mills, it is kiln dried to 94% dry matter and is exceptionally absorbent, according to Liz Russell. "It offers cows a dry environment and its weak alkaline pH discourages growth of environmental bacteria on mats and mattresses."

Plasterboard waste is another alternative and can be sourced direct from



Absorbent: wastepaper products are an alternative to straw and sawdust



Life's a beach: sand offers comfort and moulds to the shape of the cow

plasterboard factories or recycled from building sites: "It's a fine material, made from gypsum impregnated paper from the off cuts and broken boards," explains Dr Pocknee, adding that little research has been done so far to test the efficacy of the product, but it seems suitable for using on mats and mattresses.

"There is some work underway to take a closer look at using plasterboard waste as cubicle bedding."

Whatever the choice of bedding material, the deciding factors have to be cow comfort and cleanliness. Where mattresses are in use then cleanliness is the priority.

"The material that seems to be very popular at the moment is sand. It has many proven benefits to cow comfort, lameness and udder health. But its use does depend on the slurry management system being able to cope with it," he says.

"It's an instant no-no for units with pump

and sump systems as the abrasive nature of the sand will damage the equipment. Sand is best suited to units with FYM and lagoon-based systems," he says.

One of sand's benefits is that it's fairly inert – it's inorganic – which make it good for mastitis control. In other organic bedding materials mastitis-causing bacteria can grow.

"Bacteria will grow in sand, but at a much slower rate and there will be fewer of them," says Dr Pocknee. He adds that sand is also comfortable – it moulds to the shape of the cow. "Think how comfortable it is to lie on a sandy beach. Millions of us go abroad to do that each year – it's no wonder cows like it too."

Sand beds, like any other, need management. "Cows will eventually 'dig out' the sand, so it needs to be topped up and kept to a depth of between 15cm and 22cm."

Sand costs between £12 and £15 per tonne and since about two tonnes per

cow place are required each year, this is an annual cost of between £24 and £30 per cow place per year.

Old tyres

Dr Pocknee advises that some producers lay old whole tyres – turned inside out – in the base of cubicles before adding sand. "This bulks out the cubicle bed, which means that less sand is required. It's important that the tyres are well compacted with sand. Otherwise the sand will soon be pushed down into any gaps and the cow will simply be laying on the tyres."

And dredged sand is best – taken from river estuaries. "The grains are small and round. The sand is less abrasive and it's clean. If it contains impurities, such as clay or soil, it can harden when it becomes wet."

Just as all dairy systems vary, so will the best bedding choice for individual units – there's no perfect solution that fits all.

"So look at your system, look at the alternatives and look at the price. And then consider how the bedding material will effect the wider picture," says Dr Pocknee.

Take straw – he says that there may be other benefits to using straw as bedding on your unit, for example. "Handling slurry that's more solid may suit your equipment and your farm. Perhaps you have light land and it benefits from the addition of FYM. These are important factors to consider."

"Straw may be the most expensive option on first examination, but after further consideration it may be the best value for your unit. So take some time to think about it now and over the summer while your cows are outside and make an informed choice before stocking up on bedding material during the summer."

Rachael Porter