

Maintain cow housing – inside and out – to maximise cow comfort, health and productivity

# Home improvements

Wind, rain and severe flooding, in some areas of the UK, could mean that cow housing renovations and repairs will be on top of many producers' 'to-do' list this spring and summer. But where do you start? We spoke to two buildings experts to find out more.

text **Rachael Porter**

**C**ow housing took a battering this past winter on many UK units – and not just from its regular residents. Extremely wet weather highlighted areas that were far from water tight and gale force winds whipped up anything that wasn't nailed down – including many shed roofing panels. Flooding also wrought havoc in cow

houses and other dairy buildings in many areas, particularly the south west of England.

Spring turnout presents an opportunity to carry out any housing repairs and annual maintenance, as well as to make improvements to cow accommodation.

“The wind has caused problems, with roof sheets being cracked or torn from

buildings,” says senior dairy husbandry consultant Brian Pocknee. “But because it's also been wet and mild, he says that the windy winter has been a blessing in some respects.”

“We had very few still days, which meant that airflow through the damp and humid conditions in many cow houses has been better than usual and probably helped to keep respiratory and other health issues, like mastitis, under control in what could have been a problematic winter.”

He adds that ventilation is still an area that could benefit from considerable improvement on many units.

## Poor relative

Rain has also caused problems where 'rain water goods' have been lacking. Down pipes and guttering are essential to direct water into drains and away from buildings. “But these are often seen as the

*Cubicle comfort: research has shown that cows will chose dry, clean beds when they have a choice*



poor relative of building maintenance, so they're either missing or broken and this allows the water to run into the cow house. The result is often wet cubicles or soggy straw yards.

"In a recent US trial, where cows were given a free choice to lie in well-maintained, dry, clean cubicles or more typical slightly damp and soiled beds they always chose the former."

"In a typical cow house, there will always be cubicles that are cleaner and drier than the others and cows will seek these out. But there's not always a choice."

Dr Pocknee says that keeping beds dry is also vital to keep cow house humidity as low as possible. "Cow housing is prone to becoming humid because the cows themselves create so much heat, giving off at least 1kW of heat all the time. For a 100-cow herd, that's 100kW."

Add moisture to this heat and you create the perfect environment for pathogens, including mastitis bugs, to thrive. "So it's well worth fixing that cracked roof sheet or broken guttering that's allowing rainwater to run into the shed."

### Changing bulbs

Some herds are housed all year round, but spring turnout is the perfect opportunity to assess any damage or look for and tackle any areas that require maintenance and improvement.

"Look for your housing's 'pinch' points – you'll see the greatest improvements and returns for your efforts here. Once these have been tackled you can work your way down the list of other jobs – there are usually quite a few!, says Dr Pocknee. "Just spend a couple of hours at a time – here and there – and make sure that everything is fixed down properly, guttering hasn't been displaced and brackets are not broken. Those jobs don't cost a lot of money – just a bit of time. But the wet bedding that can result can end up costing you a lot in lost milk production, labour, vet and medicine bills."

Now is also an opportune time to turn your attention to lighting. "They can be tricky to get at when the house is fully stocked in mid winter and in some large houses changing bulbs can be a cherry picker job. So get on and do it now while the girls are outside."

DairyCo extension office Richard Davies agrees: "I'm seeing quite a lot of producers completely updating their cow-house lighting and opting for a system that provides 200 lux for 16 hours and 50 lux for the remaining eight hours each day," he says.

*Light-bulb moment: a new lighting system could increase milk yields (top)*

*Air flow: housing experts agree that ventilation needs improvement (bottom)*

Research has shown that the figures stack up.

"There's some serious science behind this that shows that milk yields do improve, so there's a significant financial benefit to be had from such an investment. I'm seeing these modern systems being installed in new housing, but I'm also seeing them retro-fitted in existing buildings."

### Minimal investment

Ventilation is another area where he believes there are significant gains to be had with minimal investment and effort. "Most cow houses 'could do better' when it comes to ventilation. But I don't think producers are always at fault here. I still see new buildings going up that are 'wrong' in terms of ventilation. The manufacturers and people who build the sheds are to blame here. These tend to 'off the peg' buildings.

"Bespoke buildings usually have good ventilation because the producer is given an exact specification."

Brian Pocknee adds that around 50% of new houses fail to comply with the minimum standard for cattle housing, mainly in the ventilation department. "That means that 50% are not fit for purpose – that's shockingly high."

They may comply with structural regulations, but not BS5502 (part 40 2005). The main concern here is poor ventilation.

"If you're putting up a cubicle building, for example, make sure it's designed for housing cattle. You're investing a lot of money, so make sure it's fit for purpose."

Improving ventilation in an existing building is not always about spending money. "Sometimes it can be as simple as using a chainsaw to cut out a few panels of wood."

He says the key is to ensure that air is drawn through the building. "The inlets into the building need to be twice the size of the outlets. Use smoke bombs – in the middle and at each end of a building – to check air movement and identify any problem areas.

"Occasionally fans may be needed to aid airflow, but in my experience that's usually a last resort." |

