

Identifying pinch points and bottlenecks in cow housing – and taking steps to correct them – can be simple and cost free. Here two CowSignals experts offer some tips on how to spot problems and find solutions.

TEXT RACHAEL PORTER

re you suffering from 'owneritis'? Kite Consulting's Jo Speed says that it's quite common among dairy producers – but can be cured. The benefits of taking the blinkers off, when it comes to really looking at what your cows are trying to tell you, can be huge. "Most, if not all, units have 'pinch points' or bottlenecks when it comes to cow flow and movement around buildings. And most can be reduced, if not completely removed, once identified," she says.

But that's the key – spotting them in the first place. "And it's not as easy as it sounds. Many fail to really 'see' their herd and many have what we term 'owneritis' – they see the same thing day in and day out and, at a subconscious level, think that what they see is 'normal', even though it's far from ideal." She refers to the producers she's visited who say things like: 'they never drink from that trough' and 'cows always lay against that wall in a line' or 'we can never get the cows to come into the parlour'.

"Ask them 'why' – get them thinking about it rather

than just accepting it as being what it is. We ask them to 'get their toddler hat on'. An inquisitive child would ask 'why'. Why don't they drink from that trough? Why are cows behaving the way that they do?"

She says, as simple as it sounds, that it can be quite a challenge. "Producers are in a routine, they're busy and things go unquestioned. So start asking the questions." If cows never drink from a trough then find out why. Is it because of where it's positioned? Is the water dirty/stale? Do bully cows stand guard? Is it too low down or too high? And why won't they come into the parlour? Is it too dark? Is the collecting yard too small? Are they picking up electric shocks?

"Whys make you wiser. So ask the question and do some detective work. Then solve the problem," says Mrs Speed.

Top-three bottlenecks

The top-three low-cost bottlenecks to tackle in dairy buildings are water, air and space. "Water is a big one for me," says Mrs Speed. "It's something that producers can

Six principles of good cubicle design

- Lying surface must be soft and 'grippy'
- Bed length must allow for straight lying, without overhanging the curb. That means at least 1.8m (curb to brisket locator) for Holsteins
- Unobtrusive neck rail must allow cow
- to stand squarely in stall and rise without hindrance
- Brisket locator must position cow correctly but be low enough to step over
- Head space (lunge room or 'bob' zone)
 must allow straight neck (for comfort and
- cudding) and also allow lunge room to get up and no obstruction in 'bob' zone
- Width and dividers must not cause injuries to cows, preferably no contact, while encouraging a straight lying position.

improve – in terms of access and quality – relatively quickly and easily. And it's key to productivity, health and welfare, particularly during the warmer summer months."

Make sure that 10% of the cows can drink at any one time – remember they're herd animals and like to eat and drink in groups. Drinking troughs should be easily accessible, quick to refill and the water must be fresh and clean. "I like to take a clear plastic cup and an armlength glove. I then scoop water from the bottom of the trough and I want to see clean water – something that I'd be able to drink," says Mrs Speed. "The reality is that there's often a lot of sludge at the bottom of troughs that smells extremely unpleasant."

'Waiting' cows

Vet and CowSignals trainer Owen Atkinson, from Dairy Veterinary Consultancy, says that a good rule of thumb is to allow housed cows a total space of at least 10m^2 per cow. Recent work, completed by Nottingham University and AHDB Dairy, reveals that while around 20% of farms provide this amount of space, a more typical amount in UK dairy housing is 8.5m^2 . "But the devil is in the detail," he adds. "It's about how that 10m^2 is used, and how the cows move around within it, that's important."

Producers should keep a count of 'waiting' cows. "These are cows that are standing – not lying or eating – and don't look purposeful. No more than 15% is the ideal. If feed space, for example, is inadequate, then this will be quickly flagged up.

"But it could be that they're hesitating or unable to get to where they want to be – perhaps passageways are too narrow or congested, or cows are stuck in a dead end, or they are avoiding potential conflict in a crossover. Take some time to see what's actually happening in the sheds and see what remedial actions are possible."

He says that there are still sheds that have narrow passageways and dead ends, which need to be tackled, and crossovers that need to be widened. "It is not always easy to correct, particularly if you have a three-row design, but creating extra space in loafing and feeding areas outside the shed can help. Some producers, particularly those looking to reduce output to meet buyer requirements, have removed some milkers and that's another way to create some extra space and take pressure off housing – and the herd.

"This may also allow them to remove excess beds and this could then allow them to open up a dead end or widen a crossover, by taking out a couple of cubicles either side."



Jo Speed:

"Get your 'toddler' hat on and ask 'why'. Whys make you wiser"

Producers should aim to reduce the amount of time that cows are away from their beds and feed to less than two hours a day, and for lying times of between 12 and 14 hours per day. "If you're doing that then you're doing really well. Time away, for example during milking, is time on their feet and it also interferes with feeding." Cubicle design is key here and, as part of the Healthy Feet Programme, work has been completed on how to assess comfort and lying times more objectively.

"Cubicle comfort is key to maximising lying times and there are six principles to their design. Lying surface is the most important point, without a doubt, and it's something that producers can improve instantly, simply by putting more bedding down. It's a non-capital expenditure and will always improve lying times," says Mr Atkinson.

Lunge room

Number five on the list (see box), head space, is also important, yet can be overlooked. "But it's probably one that many producers can change cheaply and easily, depending on the problem. And improvements here can see dramatic results. "It's all to do with the room in front of the lying space – the head or lunge room, that's also referred to as the 'bob' zone. It's key to allowing the cow to stand up easily. When cows stand they throw their head up and then lunge forward, with their nose close to the floor as they rise on their back end.

"If there's not enough room, the cows will tell you – they'll lie diagonally in the cubicle, rather than straight, so that they can easily get out again. Diagonal lying is nothing to do with the width of the cubicle – it's not because it's too wide. It's because there's not enough space in front of her.

Sometimes there's a wall there — either metal sheeting that forms the outside of the building or a solid wall separating the front of the cubicles from a passageway. "The simple fix is to take out dividing walls, metal sheeting or cladding — where possible. It's actually a low-cost and straightforward job and can make a huge difference to how cows lie in the cubicles."