

# The importance of hygiene during the housing period

Tom McTague, Assistant CellCheck Programme Manager

**T**he housing of dairy cows increases cow-to-cow contact and faecal cross-contamination between cows and their environment. Pre-housing preparation is the first important step in addressing hygiene. Clean, disinfected and well-ventilated sheds with sufficient space are key.

Why is hygiene so important at housing? The risk of mastitis increases when cows are housed due to a combination of faeces and moisture in a warm environment. Normally, a cow excretes up to 1,000 E.coli bacteria per gram of faeces. A mixture of warm, moist bedding and dung accumulating at the rear of a cubicle increase the build-up of E.coli bacteria by over a million-fold. This provides a serious challenge to the udder as the bacteria may build up at the teat end and enter the teat canal causing either clinical or subclinical environmental mastitis. Reducing the presence of bacteria at the teat end is achieved by is particularly important during the early dry period, especially if there are either high yielding cows prone to milk leakage or cows not forming adequate teat seals, and around calving when in-calf cows are more susceptible to infection.

There are two approaches to ensuring good hygiene at housing:

- Hygiene scoring of the cows.
- Examination of housing and management practices.

A daily cow check is recommended during the dry period. There are three areas of the cow for assessment of hygiene:

- Flank.
- Udder.
- Leg.

AHI has developed a Hygiene scoring card that is available on the Animal Health Ireland website along with a Housing and Management practices checklist. The Hygiene scoring card provides assessment of the hygiene of each area and colour codes this based on a traffic light system of green, yellow and red. The udder is the most important area for assessment. If more than 20% of cows have dirty udders, cows are 1.5 times more likely to pick up mastitis from the environment compared to cows with less than 20% dirty udders.

When using the housing checklist, the key areas to pay attention to attention are:

- Main passageways, which should be cleaned at least six times per day and minor walkways which should be cleaned twice a day to reduce any build-up.
- Accommodation, feeding and water sources should be managed to provide a clean dry environment.
  - » A dry bed treated with products that raise the pH, such as ground or hydrated lime, will help stop bacterial growth.
  - » A cubicle equivalence of 1.1 cubicles per cow is needed otherwise dominant cows take over and submissive cows will stand for longer periods or lie on slats.
  - » A feeding space of up to 0.6 metres/cow and the availability of 3 or more non leaking water troughs for 50 cows are optimal and should be checked daily for cleanliness.
- The management and use of bedding material in loose housing and calving pens around calving is critical.
  - » Poorly stored damp straw will lead to increased environmental mastitis (*E.coli* and *Streptococci*). The optimum quantity of straw required is 55kg/cow/week with twice a day bedding that is removed either daily or every second day. Carrying out the kneel test in the calving area is a good way of assessing if further bedding is needed. If your knees are damp, having knelt on the bedding, then more straw is needed.

The graphic is a promotional poster for a 'Winter Housing Checklist for Mastitis Control'. At the top left is the 'ahi' logo (Animal Health Ireland). At the top right is the 'ANIMAL HEALTH IRELAND' logo with the tagline 'Contributing to a profitable and sustainable farming and agri-food sector through improved animal health'. The main title is 'WINTER HOUSING CHECKLIST FOR MASTITIS CONTROL'. Below the title are three bullet points: '▶ How clean are your cows and their housing?', '▶ Hygiene scoring of cows', and '▶ Examining housing and management practices'. The bottom section features three images: a clean cow housing aisle, a person performing a kneel test on a wooden slatted floor, and a person cleaning a water trough. Each image has a green checkmark icon. At the bottom, it says 'NATIONAL MASTITIS CONTROL PROGRAMME' and includes the 'CellCheck' logo and website 'AnimalHealthIreland.ie'.