



CELLCHECK TIP OF THE MONTH



THE IMPORTANCE OF HYGIENE DURING THE HOUSING PERIOD.

The 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. The dry period is a crucial time, when new udder infections can be picked up from the environment leading to mastitis even though clinical signs may not be seen until the start of the next lactation.

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

WINTER HOUSING CHECKLIST FOR MASTITIS CONTROL			
► Hygiene scoring of cows			
SCC ►	Q1 What was your average SCC over the last year?		
		<input type="checkbox"/> UNDER 200,000 <input type="checkbox"/> 200,000 - 350,000 <input type="checkbox"/> OVER 350,000	
Flank ►	Q2 Cow hygiene score assessments: a. What proportion of your cows look like this?		
		<input type="checkbox"/> MORE THAN 80% CLEAN <input type="checkbox"/> 20-80% <input type="checkbox"/> MORE THAN 20% DIRTY	
Udder ►	b. What proportion of your cows look like this?		
		<input type="checkbox"/> MORE THAN 80% CLEAN <input type="checkbox"/> 20-80% <input type="checkbox"/> MORE THAN 20% DIRTY	
Hindlegs ►	c. What proportion of your cows look like this?		
		<input type="checkbox"/> MORE THAN 80% CLEAN <input type="checkbox"/> 20-80% <input type="checkbox"/> MORE THAN 20% DIRTY	

AHI has developed a Hygiene scoring card that 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. The purpose of this self-assessment checklist is to make you more aware of the hygiene of both your cows and your sheds and to highlight areas that may need improvement to minimise the risk of new udder infections occurring.



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When using the housing checklist, the key areas to pay attention to 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 meters/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.

WINTER HOUSING CHECKLIST FOR MASTITIS CONTROL

► Examining housing and management practices



Q3	How often are cubicles cleaned and limed?	<input type="checkbox"/> Twice a day	<input type="checkbox"/> Once a day	<input type="checkbox"/> Less than once a day
Q4	What is the floor surface like?	<input type="checkbox"/> Non slippery (e.g. grooved)	<input type="checkbox"/>	<input type="checkbox"/> Slippery (e.g. not grooved)
Q5	How often are main passageways cleaned?	<input type="checkbox"/> Six or more times a day	<input type="checkbox"/> Three times a day	<input type="checkbox"/> It is set to manual
Q6	How often are minor walkway areas cleaned?	<input type="checkbox"/> Twice a day	<input type="checkbox"/> Once a day	<input type="checkbox"/> Less than once a day
Q7	Is there adequate feeding space?	<input type="checkbox"/> 0.6m/cow Up to 8 cows/bay	<input type="checkbox"/> 0.4m to 0.6m/cow 9 - 12 cows/bay	<input type="checkbox"/> Less than 0.4m/cow (more than 13 cows/bay)
Q8	How many water sources are available in the housing area?	<input type="checkbox"/> 3 or more large troughs per 50 cows	<input type="checkbox"/> 2 large troughs per 50 cows	<input type="checkbox"/> Cows are queuing for water
Q9	How often are the water source(s) checked or cleaned out?	<input type="checkbox"/> Daily	<input type="checkbox"/> Weekly	<input type="checkbox"/> Less than once weekly
Q10	How many cubicles are available per cow?	<input type="checkbox"/> 1.1 cubicles per cow (i.e. for 100 cows need 110 cubicles)	<input type="checkbox"/> 0.8 - 1 cubicle per cow	<input type="checkbox"/> Less than 0.8 cubicles per cow
Q11a	In loose housing (close up pens) how much space is available per cow?	<input type="checkbox"/> More than 6.5m ² of bedded area per cow	<input type="checkbox"/> 4.5 - 6.5m ² of bedded area per cow	<input type="checkbox"/> Less than 4.5m ² of bedded area per cow
Q11b	How many additional individual calving pens are available?	<input type="checkbox"/> 1 pen (16m ²) per 25 cows	<input type="checkbox"/> 1 pen (16m ²) per 25 - 35 cows	<input type="checkbox"/> 1 pen (16m ²) per more than 35 cows
Q12	How often is the straw shed bedded?	<input type="checkbox"/> Twice a day	<input type="checkbox"/> Once daily	<input type="checkbox"/> Less than once daily
Q13	How many kgs of straw do you use per cow during the housing period?	<input type="checkbox"/> Over 55kgs per week per cow	<input type="checkbox"/> 35 - 55kgs per week per cow	<input type="checkbox"/> Less than 35kgs per week per cow
Q14	How often is the straw shed or calving pen cleaned out completely?	<input type="checkbox"/> Every second day or daily	<input type="checkbox"/> Weekly	<input type="checkbox"/> Less than weekly or at the end of the season