

WINTER HOUSING CHECKLIST FOR MASTITIS CONTROL

- ▶ How clean are your cows and their housing?
- ▶ Hygiene scoring of cows
- ▶ Examining housing and management practices



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► How clean are your cows and their housing?

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. 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.

The answers are colour coded on a spectrum to help show the ranges that can occur within each category. Read each question carefully and circle the answer which best describes your cows, your practices and your housing. This will give you an indication of areas of strength and of possible improvement. This checklist is for your own use and perhaps for discussion with your veterinary practitioner or advisor.

As you are aware, housing is just one vital component involved in mastitis control. The checklist is accompanied by a notes section, intended to provide guidance when reviewing cow and cubicle hygiene.



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► 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
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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
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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
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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
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► 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 slippy (e.g. grooved)	<input type="checkbox"/>	<input type="checkbox"/> Slippy (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

► What this means in terms of the risk of mastitis next spring?

1. Monitoring your SCC and recording cases of mastitis allows you to determine how much mastitis is occurring in the herd and whether there is a problem or not. It is important to establish a good recording system and use it. **(Refer to Question 1 in Checklist).**
2. Getting cows ready for the dry period involves several key areas including having optimum BCS, reducing milk yield by reducing meal feeding only (not water), clipping tails and checking calving dates to ensure each cow has an optimal dry period (6-8 weeks or longer for younger or thinner cows).
3. The early dry period and the last 2 weeks before calving are the times when cows are most at risk from getting mastitis. The early dry period is usually accompanied by tubing and if we do not pay very careful attention to hygiene at this point, we may introduce bacteria into the teat at a time when the cow is particularly susceptible.
4. It is really important to maintain a clean, dry, comfortable environment for cows during the entire dry period no matter what type of housing you have. Poor cow cleanliness, as demonstrated by hygiene scoring, has been shown to significantly increase the risk of new clinical mastitis infection, particularly due to *E. coli*. If greater than 20% of your cows are in the red category for hygiene scoring then they are at a greater risk of picking up mastitis. Drying agents (e.g. lime) should be used to improve dryness. The use of a cow mat greatly improves the cow comfort and the length of time they will use the cubicle. The mat condition should be checked to ensure that the surface is not starting to break down due to wear and age. Older mats may start to curl up at the side, may move due to broken fixings or may have low spots due to collapse of the mattress material. This wear will make the cubicle hard to clean and can lead to build up of dirt and bacteria. **(Refer to Question 2 to 6 in Checklist).**
5. Ensure proper cubicle usage by having cubicles designed properly. Observe how many cows are standing in the cubicles completely or half on half off. This may be a sign that the cows find it difficult to lie down or get up and avoid doing so. This may be due to inadequate space in front of their heads preventing them from lunging forward when getting up, which they need to be able to do. Check their lying position on the cubicles (or where the dunges are) to make sure the distance from brisket board to kerb is correct. The height and location of the neck rail and cubicle slope are also important. As these measurements vary depending on cow type it is important to discuss in more detail with your Advisor or Veterinary Practitioner. **(Refer to Question 7 in the Checklist and to Cubicle House Design Fact Sheet from Teagasc for more information).**
6. The loafing areas are defined as non-lying and non-feeding areas that allow calving cows freedom for normal behaviour, encouraging cows to spread out, reducing faecal contamination and bullying. The recommended area is 2m²/cow. Avoid dead ends in cubicle houses and ensure passage widths are adequate - 3m between 2 rows of cubicles, 4m alongside feed barriers or 4.3m if cows are backing out from a cubicle near the feed barrier.

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► What this means in terms of the risk of mastitis next spring?

7. Having adequate feeding space and easy access to a clean water source are essential to avoid competition between cows and build-up of dung in the passageways as cows queue to feed or drink. Dry cow nutrition is an important element of a mastitis control plan because it can influence the cows' immune status, both during the dry period and in the subsequent lactation. It is important to get correct advice on the dry cow diet to avoid any issues arising (over thin, over fat, metabolic diseases- all increase the risk of mastitis). **(Refer to Question 8 to 10 in the Checklist).**
8. Good ventilation and natural light in the dry cow house provides a dry atmosphere and reduces the chance of bacteria surviving and multiplying in the shed.
9. Managing dry cows in straw yard systems can be difficult, especially during the high risk periods outlined above so regular removal of dung is essential to avoid build-up of bugs in the cows' environment and to keep cows clean, thereby minimising the risk of mastitis. Carrying out a kneel test in the straw pen, is a good way to determine if the bed is dry enough or not. If your knees are damp or wet after kneeling on the straw bed this means the bed is not dry enough and needs more bedding. Approximately 55kg of straw is needed per cow per week for adequate bedding. A standard round bale contains 150 kgs of straw approx.. In particular, extra attention should be paid to cows in the 24hrs before and after calving. Good management of the cow and their housing around this time is important to ensure healthy cows and to reduce the risk of mastitis in the upcoming lactation. **(Refer to Question 11 to 14 in the Checklist).**



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