

Freestall Management and Maintenance

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It's time to have another look at what the cows are saying about their stalls. Processors and consumers are expecting farmers to provide an environment that is good for the cow; and since she can't talk, we are left with observing her body and behaviour.

Some of the animal based measures in the upcoming Animal Welfare segment of ProAction will assess cow comfort by looking at animal injuries. These include swollen hocks, swollen knees, and swollen necks. The stall has a direct effect on most of these because cows are expected to spend 10-14 hours a day laying down in a stall, making milk. Also look for swellings on the hooks and pins, as this may indicate a problem with the stall or surface. Therefore, the stall must provide a safe, clean, comfortable place to lay down. Have you assessed your cows lately?

The first point is the simplest: are the stalls safe? Repair damaged stalls ASAP since they are a hazard and cut down on the number of usable stalls in the pen (effectively increasing your stocking density!). The cow needs to be able to get up and down easily, without obstructions in her lunge space. Check the height of the brisket locator and the amount of bedding stored in the front of the stall. See the following link by the University of Wisconsin for more information on stall dimensions:

[http://www.vetmed.wisc.edu/dms/fapm/fapmtools/5house/Update to Stall designAABP.pdf](http://www.vetmed.wisc.edu/dms/fapm/fapmtools/5house/Update%20to%20Stall%20designAABP.pdf)

The second point is also straightforward: are the stalls clean? And alternatively, are the cows' udders clean? Dirty stalls can be a function of improper stall dimensions. This can happen when housing first lactation heifers with mature cows because the smaller heifers lay forwards in the stalls; when cows are laying diagonally (check the lunge space); or if the neck rail is too far forwards. Dirty stalls also occur when there isn't enough bedding in the stall. In deep bedded stalls the bedding needs to be level with the rear curb at all times, otherwise, manure runs back into the stall and cows develop swellings on their pins. Cows prefer level stalls and will compete for them. Levelling of these stalls needs to be done at least twice a week to prevent holes that pool manure. In mattress stalls too little bedding means there is nothing to absorb the wetness...except the cow. Mattress stalls need 2-4 inches of bedding. Accomplish this by adding more bedding more frequently.

Note that cows strongly prefer dry bedding over wet bedding, and will compete for dry stalls. In a University of British Columbia study (Fregonesi et al, JDS, 2007b), researchers found a 5 hour/day lying time difference between dry (86% dry matter) and wet (26% dry matter) bedded stalls. The cows with wet bedding just stood around more! The tolerance is about 65% DM before lying time is affected.

Lastly, cow comfort is largely measured by lesions on her neck, knees, and hocks. Neck swellings indicate a problem with the neck rail or feed rail placement and knee swellings can be due to lunge space obstructions. Hands down, the best way to prevent hock injuries is with deep bedding. It is just too difficult to keep enough bedding on a mattress. If you cannot make the switch, then mats need more bedding more frequently, and you may need to consider mat replacement or

refurbishment if they are over 7 years old. It takes 3-5 weeks to see an improvement in hock lesions after a change in stall management. If swollen hocks are occurring in a deep bedded situation, check that bedding is always up to the level of the rear curb and level stalls more frequently. See the chart below for hock scoring:

1 =no swelling or hair loss; 2 =bald area on hock, no swelling; 3 =swelling and/or lesion through the hide

Scores 1 or 2 are acceptable.



(adapted from Hock Assessment Chart for Cattle, Cornell Cooperative Extension)

Any swellings on a cow are abnormal. Observe your cows and make the appropriate changes to keep them safe, clean, and comfortable. After all, she's the one making the milk.