

Hock, knee lesions important indicators

KATY PROUDFOOT

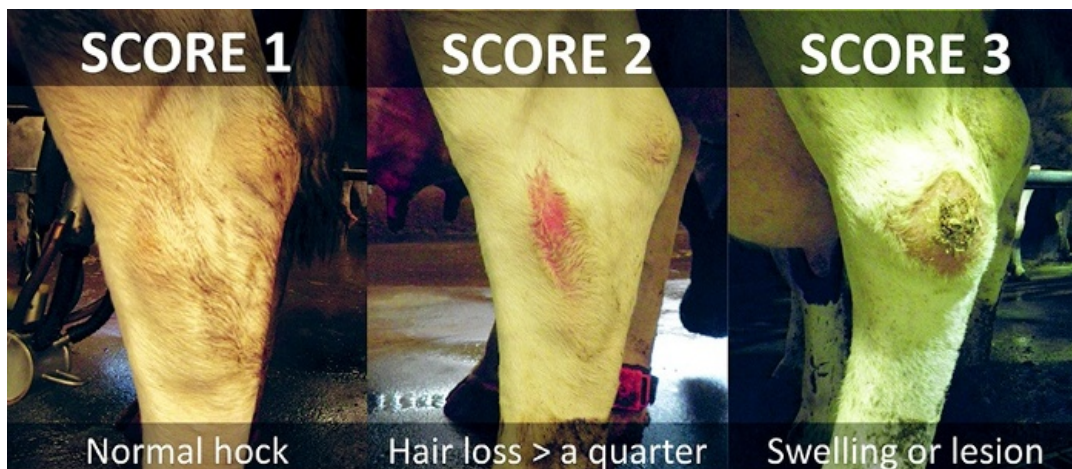
When thinking of cow comfort, what comes to mind? Many think about dimensions of the freestall, stocking density or lying time. But another way to

measure the comfort of a herd is to take a closer look at cow hocks and knees. Hock and knee lesions are increasingly recognized as



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barometers of cow comfort; they indicate how facilities directly impact cow welfare. For that reason, those lesions are routinely scored by evaluators for the National Dairy Farmers Assuring Responsible Management program



Optimally 95 percent of the dairy herd should score a 1 or 2. For herds not yet at this level, the incidence of hock and knee lesions can be reduced by making simple modifications in cow housing and facilities.

– FARM – and for other animal-welfare assessments.

Dairy producers should determine the prevalence of

hock and knee lesions in their herds, and compare the findings with averages estimated by researchers and criteria for the Farmers Assuring Responsible Management program.

To reduce injuries, incorporate these strategies:

Score hock and knee lesions

Most researchers use a three-point scoring system to measure hock and knee lesions, typically while cows are in the milking parlor. In large herds, randomly choose a sample of cows to score – for example, every third cow. When scoring a herd, a good rule of thumb is to score at least 100 cows. A herd's prevalence can easily be calculated by dividing the number of cows scoring a 2 or 3 by the total number of cows scored, and multiplying by 100. So if 100 cows are scored and four of them have a score of 3, the estimated prevalence of score-3 lesions is 4 percent – 4 divided by 100 equals 0.04, times 100 equals 4 percent.

Compare with other farms

On a farm with excellent cow comfort no cow should score a 3. But maintaining a level of zero cows with a score of 3 isn't always realistic – and can vary by region and housing systems. Researchers at the University of British Columbia's Animal Welfare Program estimate the average prevalence of hock and knee lesions with a score of 3 to be 5 percent for hocks and 23 percent for knees in the northeast part of the continent. In California the program found 2 percent for hocks and 0 percent for knees.

The Farmers Assuring Responsible Management program's criteria are for 95 percent of cows in a herd to score a 1 or 2. If more than 5 percent of cows in a herd score a 3, it's advisable to consult with an evaluator or veterinarian to reduce the prevalence and create a plan for improvement.

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Lesions

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Reduce lesion risk

Hock and knee lesions are typically the result of a cow repeatedly rubbing against or lying down on a hard surface – such as concrete or rubber-filled mattresses. Multiple studies have found that deep-bedded stalls, or compost-bedded or straw-bedded packs, significantly reduce the incidence of lesions compared to mattresses. Bed maintenance plays a vital role because cows tend to push out bedding material, creating a “bath tub” effect. To counteract this, rake stalls frequently so bedding stays level with the curb.

Farms using mattresses can reduce lesion incidence by making simple modifications. Studies show that recessing the mattress 2 inches below the curb and topping it with 1.5 to 2 inches of sand is comparable to using deep-bedded stalls.

Other ways to reduce hock and knee lesions include reducing stall-stocking density, providing cows with access to pasture during the dry period, and keeping bedding dry and clean, as well as more frequently raking the stalls and changing the bedding.

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In addition to scoring hocks, knees should also be scored. The easiest place to do this is in the milking parlor.

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