

Improving Animal Welfare and Productivity in Dairy Herds

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Abstract

In the last years researchers and farmers have put more attention on creating a comfortable environment for dairy cows and their replacements. Observation and experience show that cows housed in a comfortable environment produce more milk and generally live healthier, longer lives. Cows should have it all – good management, plenty of quality feed and water, fresh air, adequate daylight periods, a soft, clean resting surface and good floors.

All equipment and animal housing systems must be designed, built, maintained and managed with focus in animal welfare. To judge the level of cow comfort, it is important to know how a cow acts naturally, and for that is necessary to check daily time budget (eating, lying, resting, social interactions, ruminating, drinking, milking and travel time). Social interactions are part of natural herd behaviour but is very important to have good space per animal to prevent negative interaction and also to offer the opportunity for the cow to self-groom using swinging cow brush so we can have healthier and more productive cows. Cows should behave naturally and stand or lie down easily. They need to stand up to walk, to eat, to drink or to be milking and lay down to rest and ruminate. Therefore ensuring a cow is comfortable during this process can have a significant effect on health and productivity.

To help ensure good feed intake, it is crucial that animals are comfortable while eating. Feed intake is increased when the cow has a comfortable eating position at the manger. The quality of floors, in terms of shape, hardness, friction and hygiene is of great importance for the health of cow feet and legs. Standing a long time in a waiting area and long walking distances on concrete floors, can all contribute to excessive wear and overburdening of the hooves. Installing rubber floor coverage in the alleys, milking parlour and the waiting area improve the daily routine and hoof health.

Water is essential for life and animal welfare. When good water supply is provided, cows drink more, eat more and thus produce more milk. Ventilation of any dairy housing structure, whether it is a newborn calf barn or a lactating cow barn, is very important. Dairy cows need a constant source of fresh, clean air to achieve their production potential. High moisture levels, manure gases, pathogens and dust concentrations present in poorly ventilated structures, create an adverse environment for animals. Heat stress will decrease milk production, feed conversion rate and fertility (decrease pregnancy rates and lower birth weight in calves). Today the cow cooling system is crucial for modern farms. Long daylight periods (16 hours of daylight) have a very positive influence on milk yield, fertility and herd health. Today with the knowledge and new technologies, we have the clear opportunity to improve animal welfare and productivity in dairy herds.

Keywords: Animal welfare, cow comfort, cow longevity.