

Comfy Cows Could Produce More Milk, Have Fewer Health Maladies

LEXINGTON, KY.

At the University of Kentucky Dairy Farm, milk cows are singing anything but the blues. The staff, students and faculty there have been putting a lot of effort into making them more comfortable with bigger stalls, rotating grooming brushes and, yes, even waterbeds.

On the surface it may all sound very luxurious, but Jeffrey Bewley said it goes way beyond that.

“Our interest is in creating happy farmers and happy cows simultaneously,” the UK assistant dairy extension professor said. “Providing cows with a comfortable environment is important for their well-being. The solutions we are studying show potential for reducing problem cows and increasing production and cow longevity, thus they may benefit the dairy farmer too. As consumers become more in tune with the lives of production animals, it is important that we look for these win-win situations.”

Earlier this fall, the UK Dairy Farm staff installed rotating brushes so cows could groom and scratch themselves. During the research period, cows either had access or no access for 10-day intervals.

“I observed that when cows did not have access, they would stand under the pole that would typically hold the brush,” said Randi Black, UK graduate student in Animal and Food Sciences. “This makes me think they have incorporated it into their regular and habitual grooming process. Cows are willing to use the brush and seem to really enjoy using it.”

The researchers also have 24-hour per day video footage to analyze as well as blood samples collected during the two-month period to measure changes in the cow's stress levels.

A new project includes the addition of dual-chamber waterbeds in the cows' stalls. Bewley said cows have a natural need to rest.

“When you provide them with ample opportunity to lie down, milk production tends to increase,” he said. “Additionally lameness and diseases decrease, and that also leads to higher production.”

Graduate student and project leader Barbara Wadsworth said there has not been much research on cow waterbeds but the few results she's seen are encouraging.

“These beds are very comfortable, and they move with the cow as she gets up and lies

down,” she said. “We also changed the dimension of the stalls to meet current recommendations ... an important factor in keeping cows from standing with their rear feet on concrete.”

The cows in one barn will use the waterbeds, while another group of cows will get to relax on conventional mattresses. The team will compare lying time, rumination time, milk production, somatic cell counts and lameness and hock



condition between the two groups.

There's really no fear that the UK Dairy will be confused with a spa, as all the projects have a real biological meaning to the cows, Bewley said.

“These aren't just ‘toys,’ and we aren't trying to provide them with a luxurious life,” he said. “We really just want to provide cows and their farmers with a comfortable lifestyle.”

The next project includes installing more fans to help cows deal with the heat stress they may experience when the weather gets warmer next spring. Bewley said cows actually begin to experience heat stress when the temperature humidity index is a mere 68 degrees Fahrenheit.

He added that they are also planning to analyze the economics of the comfort solutions they have been implementing.

“If these ideas don't make economic sense to the dairy farmer, they aren't as useful,” he said. “We want to understand the real economic value to the dairy farmer.”

Sponsors and partners for the project include the UK College of Agriculture, UK Coldstream Dairy, Advanced Comfort Technology and Lely.

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