



Cooling Bed for Livestock

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WARF: P130304US02

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a heat-exchanging mat that reduces the risk of heat stress and lameness in livestock.

Overview

A heat-stressed cow exhibits problematic behaviors like standing, panting, thirst and diminished appetite. These reactions cause serious side effects: the cow will produce much less milk, become less fertile and suffer higher rates of debilitating diseases like mastitis and lameness. The United States dairy industry loses \$900 million a year to heat stress.

Large fans and misting systems are typically employed to combat the problem, but these measures are extremely water intensive and ineffective in humid areas of the country.

The Invention

UW-Madison researchers have developed a new cooling mat for livestock that circulates chilled water through elastic conduction channels. Unlike existing systems that require an interfering layer of bedding, the new design provides greater heat exchange because the chilled surface is placed directly beneath a reclining animal. A layer of cushioning beneath the water channels provides support and comfort.

Applications

- Cooling beds for preventing heat stress in livestock

Key Benefits

- Efficiently conducts heat away from animal
- Cushioning provides traction and helps prevent hoof injury
- System is easy to clean and maintain.
- Installs and fastens easily in a concrete stall
- Cooled water can be circulated through multiple mats.
- Eliminates the need for evaporative pads, water sprayers and fans
- Cost-effective

Stage of Development

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For More Information About the Inventors

- [Christopher Choi](#)

Related Technologies

- [WARF reference number P06229US describes a method for optimizing the health and productivity of milk producing animals.](#)

Tech Fields

- [Animals, Agriculture & Food : Animal health](#)

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842

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