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NEW HIGH-TECH WEARABLE KEEPS COWS COOL

● SUSTAINABILITY

A Japan-based company has developed a shirt with moisture sensors that can prevent heat stress in dairy cows.

Dairy cows are particularly susceptible to high heat. According to the [United Kingdom's National Animal Disease Information Service](#), at temperatures above 25°C (77°F), cows can become heat stressed, leading to decreased milk production and fertility, and eventually causing illness. As average temperatures rise around the world, heat stressed cows are becoming an increasing concern for dairy farmers, and many dairies rely on sprinkler systems to keep the cattle cool in summer. But this method has drawbacks, as it tends to leave standing water which can itself create hygiene and health issues for the cows.

Now, a new product from Japanese underwear maker [Gunze Ltd.](#), promises cooler and healthier cows. Gunze, in conjunction with the [Kyoto Prefectural Agriculture, Forestry and Fisheries Technology Center](#), has developed a shirt-like radiator for cows, made from a proprietary fiber with high thermal conductivity, developed by Gunze. The shirt covers the cow's neck and shoulders and has a sensor that monitors the moisture levels of the material. When the shirt becomes too dry, water is pumped into the shirt through a tube. As the water evaporates, it cools the cow. The material is also highly stretchable, so that it stays on the cow, no matter what.

Tests have shown that the shirt, called Ushibull, is effective at minimising the heat stress in cows and maintaining milk production. We have seen other high-tech wearables aimed at animals, such as the [Fitbit for cows](#), which wirelessly sends useful data to farmers, and [bluetooth headphones to help horses relax and focus](#). What other innovative technologies could be considered for their future use in livestock development and welfare?

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