

The Challenge

Body condition score (BCS) is a key indicator of cow health and welfare. It is a measure of the amount of fat and muscle on a cow's body. A BCS of 1-2 indicates a cow is underweight, while a BCS of 3-4 indicates a cow is at a healthy weight, and a BCS of 5 indicates a cow is overweight.



The Research

The study was conducted by researchers from the University of Waikato, New Zealand.

Locomotion scores are collected weekly by trained operators using a scale 1 to 5. Cows are typically considered lame when they have a locomotion score of 4.0 or above on a single occasion or two successive assessments of locomotion score 3.0.

Body condition score (BCS) is assessed weekly using a 0 to 5 scale with increments of 0.25. Assessors are alternated weekly to reduce any likelihood of operator bias.

Body weights are also recorded using an automatic weighing system after each milking (three times daily).

The Results

The study showed that cows with a BCS less than 2 are at greatest risk of mild or severe lameness. Conversely, a BCS above 2.0 is correlated with a reduced risk of mild or severe lameness.

This study provided further evidence for a minimum target BCS threshold. A cow's body condition should be held at or above BCS 2.0 for control of severe lameness and at or above BCS 2.75 for optimum control of mild lameness.

In general, BCS change was able to indicate the risk of lameness three weeks prior to a clinical case of lameness.

The Impact

This study adds to the evidence that maintaining BCS is the best way to minimise the risk of lameness. It is important to control lameness and its associated adverse effects on animal welfare, production and fertility.

