

What Are Your Fresh Cows Losing Besides Weight?

Alvaro Garcia, DVM, PhD

A dairy cow can lose considerable weight after calving without attracting much attention. Some weight loss is expected as milk production increases, feed intake struggles to meet energy requirements, and body reserves are mobilized to support lactation. The challenge is determining when this normal physiological adjustment becomes excessive and begins to compromise health, reproduction, and productive longevity.

Most dairy producers recognize the importance of body condition scoring (BCS). However, cows are generally scored at selected stages of lactation rather than monitored continuously. A cow may be evaluated at calving and again several weeks later, but what happens between those observations can be just as important as the scores themselves.

A cow that moves from a BCS of 3.3 at calving to 2.8 several weeks later has lost half a condition point. But did that loss occur gradually? Has she stabilized, or is she continuing to lose condition?

The important question is not simply how much condition a cow has lost, but how rapidly she is losing it and whether that loss is continuing.

Weight does not tell the whole story

Body weight and body condition are related, but they measure different things. Weight reflects body tissues, gastrointestinal fill, hydration, and other factors. BCS provides a more specific assessment of body energy reserves.

Two cows weighing 1,400 pounds may have substantially different body condition scores. Conversely, a cow may experience changes in weight without a corresponding change in body condition.

This distinction becomes particularly important during early lactation. A reduction in weight accompanied by declining BCS suggests mobilization of body reserves, whereas weight changes with relatively stable BCS may reflect other physiological factors.

From occasional observations to continuous monitoring

Three-dimensional camera technology offers a different approach. Cameras positioned along the cow's normal route to or from milking capture her body contours without additional handling. Specialized algorithms analyze anatomical regions such as the hooks, pins, loin, and back to estimate BCS and body weight.

The greatest advantage is not necessarily the precision of an individual measurement, but the ability to repeat measurements consistently and follow changes over time.

In one commercial dairy, more than 22,000 BCS measurements were collected from approximately 5,700 animals over seven days. This frequency allows managers to evaluate individual trends rather than relying exclusively on occasional observations.

Consider two fresh cows with identical BCS values of 2.8 at 40 days in milk. One calved at 3.0 and has remained relatively stable. The other calved at 3.5 and continues losing condition. Although their current scores are identical, their management implications are quite different.

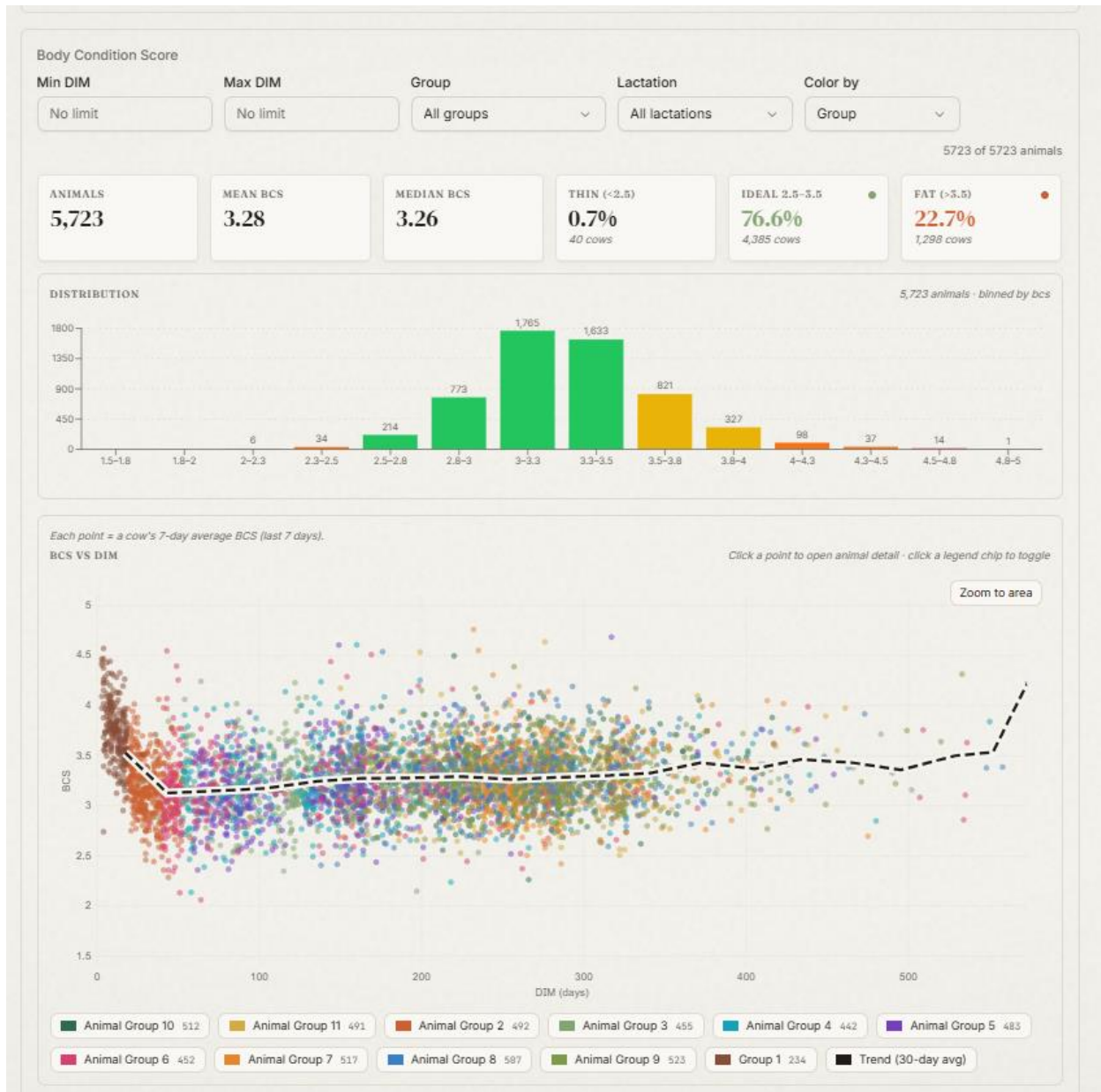


Figure 1. Body condition across lactation in a commercial dairy herd. Body condition scores of 5,723 cows obtained using automated 3D camera technology. Each point represents an individual cow's seven-day average BCS plotted against days in milk.

The second cow deserves closer examination. Is she consuming enough feed? Has she experienced a health problem? Is competition at the feed bunk limiting intake? Is the ration meeting her nutritional requirements? Continuous monitoring cannot diagnose the cause, but it can identify cows whose condition is changing unexpectedly and direct attention toward them before problems become more serious.

From measurements to management

Excessive body condition loss during early lactation has been associated with poorer reproductive performance and increased health risks. The consequences may extend beyond the transition period, affecting the cow's prospects for remaining productive in the herd. For producers and consultants, continuous monitoring provides opportunities to evaluate BCS changes at the herd, group, and individual levels. Unexpected patterns may reveal nutritional deficiencies, management problems, or animals requiring closer attention.

However, additional measurements do not automatically improve outcomes. Information must lead to timely evaluation and appropriate intervention. Technology should support experienced stockmanship, not replace it. A cow's productive life is influenced long before the decision to cull her. Recognizing excessive condition loss early enough to intervene may help protect her health, reproductive performance, and longevity. A body condition score tells us where a cow is today. Her trajectory tells us where she may be heading.

References

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