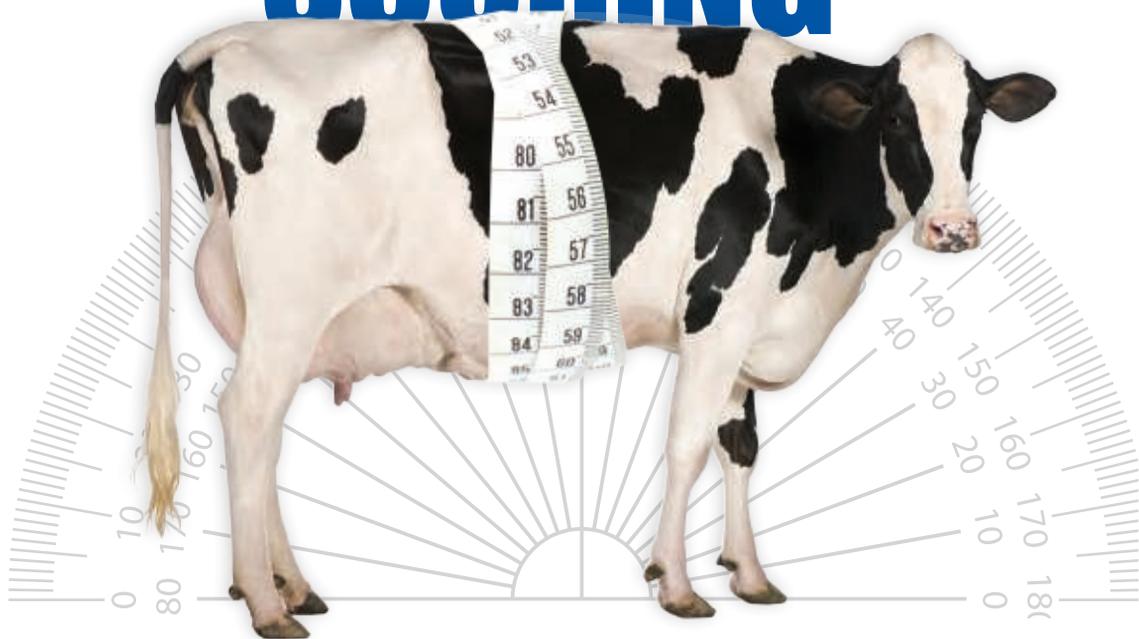


# A NEW LOOK AT **BODY CONDITION SCORING**



Before you page past this article, thinking that you know all there is to know about the age-old theory of body condition scoring and how

to use it, I would like to start the New Year by adding a bit of flavour to this well-chewed meal.

## WHAT DO WE KNOW?

Everyone will have seen the familiar graph of body condition scoring targets (Figure 1). We all agree that it is fine for cows to drop in condition after calving and to come back to their ideal calving body condition score (BCS) of 3,5 by dry-off. What I have added to the graph are the orange bars showing the thickness of the fat pad underneath your cows' feet. Notice how the shape is very similar, how it drops and comes back, just like the rest of the fat in the body.

and it grows and deteriorates in response to body condition. When a cow loses body condition, the fat pad thins out and the pedal bone has an opportunity to drop onto the sensitive growth layer (the corium) of the sole. Here it mashes the generative cells (keratinocytes) and creates horn with blood in it. This starts as redness in the hoof and results in sole ulcers and white line lesions.

## NEW YEAR'S RESOLUTIONS

So what do foot fat and body condition score have to do with us achieving our goals in 2019?

Bicalho *et al.* (2009) used ultrasonography to measure the thickness of the digital cushion and reported that thin digital cushions were positively related to lameness.

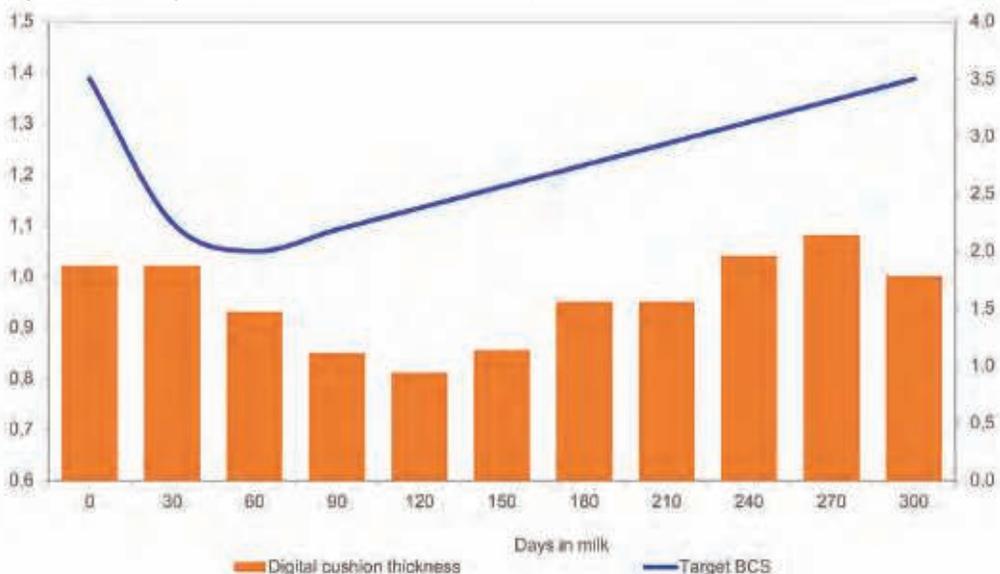
Lim *et al.* (2014) scored four farms every two weeks for 17 months, racking up an impressive 6 889 BCS and locomotion observations. They found that cows with BCS<2,2 were more likely to become lame, and if lame, they were less likely to

## INTRODUCING THE DIGITAL CUSHION

You didn't know cows had fat in their feet? Let me introduce you to the amazing shock absorber that hardly anyone knows about, called the digital cushion.

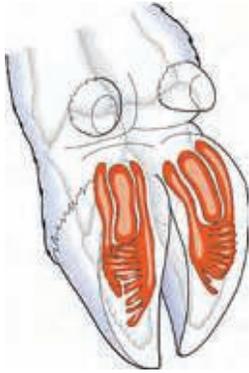
The digital cushion is an interesting structure. It is the shock absorber between the cow and the ground. It is bigger and softer in cows than in heifers,

**Figure 1** The relationship between digital cushion thickness (left axis) and body condition score (right axis) in dairy cows (source: Bicalho *et al.*, 2009)



# THE COMFORT column

## CONTINUES



recover. Randall *et al.* (2015) followed 724 cows over eight years. They found that cows with BCS<2 were at the greatest risk of lameness.

### THIN COWS GO LAME

From my work, locomotion scoring over 28 000 cows, I know that farmers only see around 15% of the lame cows on their farms. That is one in eight! As a dairy farmer, it is challenging to manage problem cows that you cannot see, and lame cows are hard to spot (until you know how). On the other hand, it is easy to spot thin cows which is why body condition scoring is so critical.

#### The effect of thin cows and lameness on your bottom line

Thin cows go lame

Thin cows will not fall pregnant until they are gaining weight. This pushes out your breeding season (pastures) or extends your days in milk (TMR), which are both primary drivers of dairy farm profitability.

Lame cows are:

- 2,8 x more likely to have increased days to first service;
- 15,6 x more likely to have increased days open;
- 9,0 x more likely to have increased services per conception; and
- 8,4 times more likely to be culled.

Lame cows don't want to walk, so they don't eat, so they stay thin ... and the cycle continues.

Body condition scoring is something that every single technical advisor should be able to do on your farm. Ask them to help you do at least three scores throughout the herd, then plot these on a graph and manage your animal accordingly.

1. Score at dry-off. If the cows are not at 3,5, change your late lactation diet.
2. Score pre-calving cows. Cows should neither gain nor lose condition during their dry period, so this score should match the BCS at dry-off.
3. Score at peak milking to determine how much body condition cows have dropped on average. 

