

Body condition is key to a trouble-free and productive lactation

Do you know the score?

Producers know the importance of calving cows at the 'correct' body condition score – the benefits are numerous. But it's easier said than done. We spoke to a vet and a nutritionist for some practical pointers to help you get it right.

text **Rachael Porter**

Focusing on body condition score really can have a significant impact on cow performance. So says NWF's Tom Hough. "We ask a lot of a modern dairy cow during the course of a lactation," he says.

"She has a calf, she has to recover from calving and get settled into lactation and then start eating large amounts of feed.

"And then she has to produce high quality milk, get back in calf again and keep milking until it is time to go dry and start all over again.

"The effectiveness of all these activities is dependent on energy. If the cow has enough energy then generally things go better," he says. "If she is short of energy there is a risk that the wheels will come off.

"The cow gets energy from her diet and from her own body. Problems arise when too much energy is supplied from body reserves due to a

failure in managing dry matter intakes, and this is where body condition scoring fits in."

He adds that all cows follow a natural body weight cycle during a lactation. They lose weight in early lactation before putting it back on in late lactation.

"So, when managing cows, we need to avoid two things. The first is cows losing too much condition too quickly, and the second is cows being either over or under weight at any given stage of lactation.

"Body condition scoring allows a quick and easy assessment of how much weight cows are losing or gaining and how quickly condition is changing."

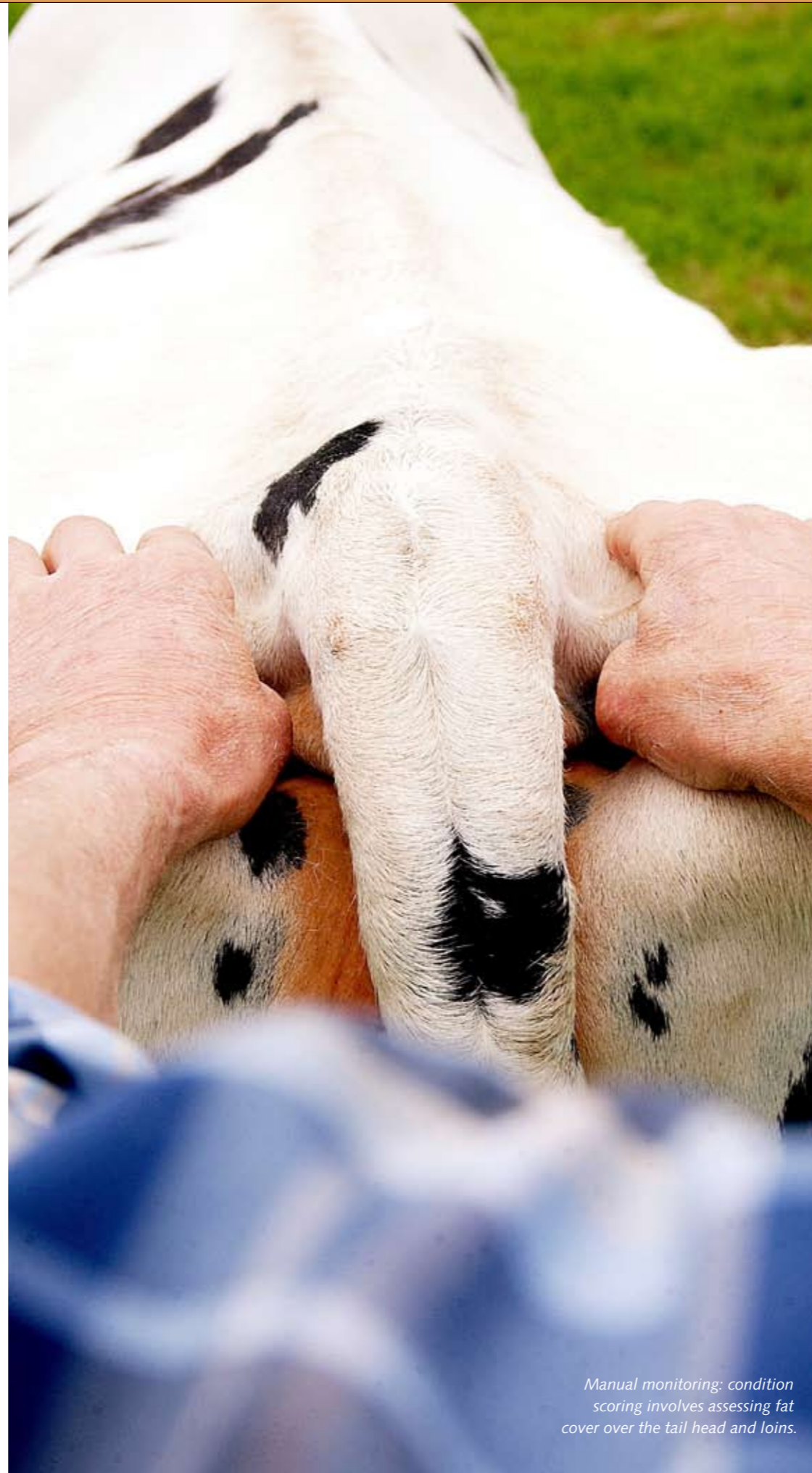
Condition scoring involves assessing the fat cover over the tail head and loins. Assessment should be made by both sight and feel with cows scored against a scale of one to five, with one being emaciated and five grossly over fat.

Big benefits

"The aim should be to dry cows off in appropriate condition and to not let them put on weight when dry," says Mr Hough.

"Post calving, the objective is to minimise the extent and duration of the negative energy balance and to also reduce the rate and severity of body condition loss," he adds.

"As body condition scoring is looking at a continuous process of change there is no single ideal time to condition score cows within a lactation. The important thing is to regularly assess the condition of cows at different stages of lactation as



Manual monitoring: condition scoring involves assessing fat cover over the tail head and loins.

this is the only way to get a true picture of what is happening in the herd."

Mr Hough adds that tools like NWF's body condition score (BCS) monitor allow a simple and effective way to monitor the condition of cows and to spot problems early. This tool not only looks at the results at a single point in time, but also builds a picture of change over the lactation.

Correct BCS management can have big benefits. For example, cows that lose too much condition in early lactation have poorer fertility.

The more condition they lose in the first month of lactation, the longer it will take for them to start ovulating and the lower conception rates will be. This will lead to extended lactations and a real risk they will dry off carrying too much condition.

"Cows that are above BCS 3.5 at drying off are three times more likely to develop reproductive problems and have difficult calvings," he says.

"Excessive condition loss in early lactation indicates that cows are in negative energy balance and until this is rectified those cows will not milk to their potential. Cows above BCS 2.75 tend to have higher peak and total milk production.

"By measuring BCS regularly you can ensure cows are in the correct condition throughout lactation and take targeted action to reduce the problems of incorrect BCS. The rewards for getting it right can be considerable, as those who already manage BCS will testify."

Fertility link

Changes in body condition score during the transition period can have an effect on fertility and James Husband from Evidence Based Veterinary Consultancy believes that cows should not lose more than 0.5 to 0.75 of a point.

"This is one of the main starting points when we look at fertility in dairy herds," he told the international audience of nutritionists at Provimi's Animal Nutrition Seminars, which was held in the Netherlands in June.

"A loss of 0.5 to 0.75 will have limited effect on fertility. Beyond this and the breakdown of fat has the potential to effect liver function and subsequent cow performance."

Work from the University of Nottingham shows that cows that



James Husband: "Three or four months into lactation, BCS levels out"

are fatter at calving lose more condition early in the lactation. "Three or four months into the lactation, body condition scores level out but it was very clear from the work that the condition score of 'fat' cows fell rapidly post calving," says Mr Husband.

And while measuring body condition score is seen as a high priority, Mr Husband stresses that producers must be cautious. "Some cows are genetically programmed to certain body condition scores and this must be acknowledged.

We also need to be wary of averages and look out for skinny and fat cows within the group, and if this is the case question whether the grouping and feeding strategy during lactation is right.

"But what is vitally important is to adopt a rigid protocol in assessing body condition scores and make sure, as far as possible, that cows have a BCS of 2.5 to 3 at drying off and at calving."

Pointers for producers include maximising dry matter intakes during the transition period to prevent an excessive drop in BCS.

"The key is to make sure that cows are metabolically robust at calving," he says.

Producers should avoid over feeding. A trial that compared two groups of cows, one of which was overfed throughout the dry period, found that this over-fed group had far greater fat mobilisation at calving and fat accumulation in liver one day post calving.

"If cows are too fat then they have greater stores of adipose tissue, which is not good. So, when feeding dry cows, don't overfeed cows in the far-off period – these cows can live off not much more than fresh air."

Mr Husband says that between 5kg and 7kg of straw and grass silage is adequate. "Maize silage could be too high in starch and don't let them sort – use a very short chop for straw. And add water to the mix because that can help mineral intakes because it sticks to the straw." |

Tom Hough: "Minimise the extent and duration of the negative energy balance"

