

Cow
SIGNALS®



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Feeding signals

A practical guide to feeding dairy cows for health and production

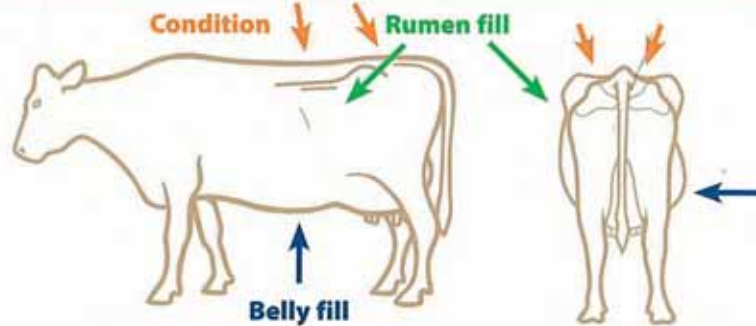
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Feed intake

Rumen fill, belly fill and condition score tell you how much feed and nutrients a cow has eaten. If a cow eats very little (very empty rumen), her belly fill can drop dramatically in two days and her condition score in one week.

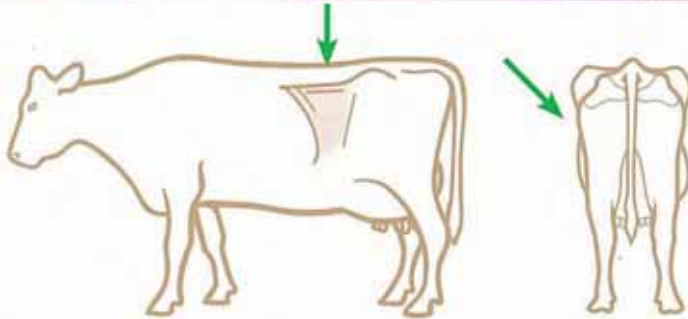
Right

This cow has eaten well. Rumen fill, belly fill and condition are OK.



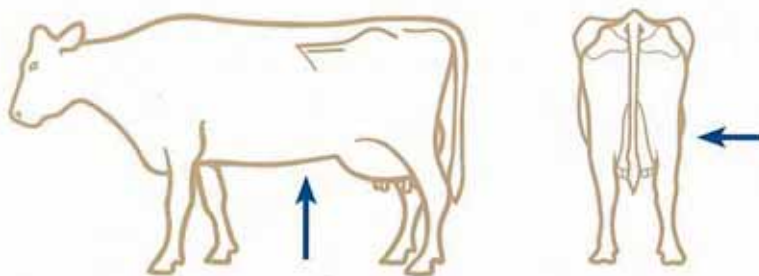
Rumen fill

This cow has not eaten enough **TODAY**.



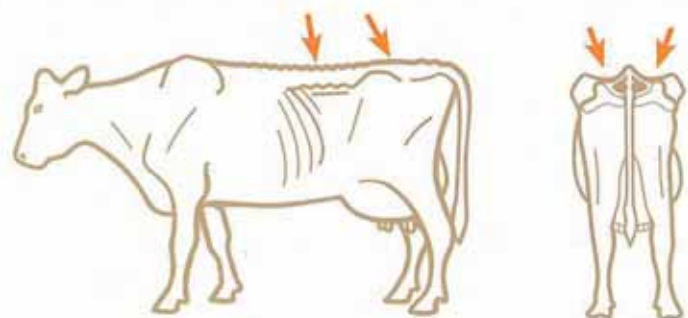
Belly fill

This cow has not eaten enough **THIS WEEK**.



Condition Score

This cow has not eaten enough **THIS MONTH**.



Hypocalcaemia (milk fever)

Around calving, the body is unable to mobilise calcium from the bones quickly enough to keep the blood calcium concentration at the right level. A lot of calcium leaves the body with colostrum and milk production, while there is very little loss of calcium during the dry period. Third-calving and older cows form the high-risk group. Target: < 15% milk fever incidences with 3+ lactation.

With clinical hypocalcaemia the cow can't stand up, she has cold ears and her throat, intestinal, rumen and uterine muscles are paralysed to some extent.

Clinical and subclinical milk fever contribute to the onset of various problems, such as a drop in feed intake, displaced abomasum, lowered disease resistance, resulting in an increase in mastitis, retained placenta and uterine infection.

Treatment: administer calcium. If the cow can't stand or has other obvious symptoms, give it to her via an intravenous infusion. If symptoms are minor, give a preparation by mouth or by injection as post-treatment or as part of your high-risk cow care.

Preventing milk fever

To prevent milk fever around calving, the dry-off ration should contain very little potassium ($\leq 1.5\%$), enough magnesium (> 3.5 g/day) and 12 to 14% crude protein. Sunlight and plenty of exercise are also preventative. Milk fever during lactation occurs when the ration contains too little calcium. Supplement such a ration with extra calcium, e.g. limestone grit.



A milk fever infusion is quick and easy to give to a third-calving or older cow that is not vigorous and attentive, is eating poorly, is not defecating and has cold ears. Note this together with the cow's symptoms. Once a year, review whether this is the best protocol and whether you need to adjust the ration.



Cows with milk fever have cold ears. Because the swallowing muscles and muscles in the gastrointestinal tract are not working properly, they don't eat and drink so they don't produce much manure.



Newly calved cows with milk fever and other problems drink very little and have an empty rumen. Using a stomach tube, introduce 20-50 litres (5 to 13 US gal.) of lukewarm water, possibly with calcium and other minerals, directly into the rumen. Get the vet to teach you how to do this and include it in your treatment plans.

Feeding signals

'You feed with your eyes'

An old Dutch farmers' saying

Good feeding is the basis of your farm's success, not only financially but also in terms of production, animal health and fertility. Did you know that almost 50% of the differences in milk production between farms is determined by the ration composition? And that the rest is down to other things such as housing, animal health and cow management?

Feeding Signals answers the four practical questions that every dairy farmer and worker on every dairy farm asks:

1. What should I feed and how much?
2. What is the best way to make sure every animal gets the right ration?
3. How do I check that every animal is eating what they should be eating?
4. How do I make adjustments and solve particular problems?

This book contains a fascinating array of practical tips and valuable guidelines about the essence of healthy, economical feeding. Did you know that a cow that can't eat with the group eats her meals faster and takes in less feed overall? That a dairy cow produces about 200 litres (53 US gal.) of saliva a day and pumps about 15,000 litres (4000 US gal.) of blood through her udder? And that most farms prefer not to feed early in the morning?

In addition, **Feeding Signals** shows you what you as a dairy farmer can do today to improve your feed management, with reliable information, short explanations and lots of images taken on working farms.