

By **Debby Brown** - Consultant veterinary nutritionist, Advanced ruminant nutrition
Winter Feeding of Suckler Cows

Body condition scoring is a key management tool when managing suckler cow healthy and fertility. Cows tend to gain condition cheaply at grass and can then afford to lose it during the winter as long as this loss is controlled and not excessive. Very fat cows at calving may result in increased calving difficulty. Equally, thin cows can also have increased problems including calving difficulties, as well as poorer quality colostrum, delayed return to oestrus and lower conception rates.

Spring calving suckler cows

Spring calving cows can gain condition during the grazing season and then lose some condition over the housing period, to ensure they are in the correct body condition score at calving.

Table 1: Target body condition score of Spring calving suckler cows

	Calving	Service	Housing
Target Body Condition Score	2.5-3	2.5-3.0	3.0-3.5

At this time of year spring calving cows should be pregnant and calves should be starting to reduce reliance on milk and so a number of considerations need to be taken into account.

If cows are in poor body condition calves can be weaned early. Early weaning is one management tool that can be used to increase body condition score in thin cows during late summer. Removing the nutrient demands of lactation will increase the amount of energy available to the cow or heifer. This additional energy should allow for gain in fat reserves and increased body condition. However, if the cows are in good condition and space is not limited then calves can be left on the cow until December (depending on when calving is due to start).

Managed changes in body condition should be planned effectively to reduce large fluctuations in weight gain and loss. Ideally any condition score changes should be limited to half of a body condition score. Normally cows will gain weight at grass over the summer months and we want to make use of this condition over the winter to keep expensive winter feed costs as low as possible. One body condition score is equal to approximately 13% of the cow's liveweight, therefore if a 650kg cow needs to lose half of one condition score, then it will take 80 days at a daily liveweight loss of 0.5kg/day. Therefore cow management for calving starts at the beginning of the winter.

As cows move closer to calving they need to be prepared for colostrum and milk production as well as conceiving the next calf. Increasing body condition score in late pregnancy should be avoided because it often results in bigger calves. Body condition score strongly effects the amount of immunoglobulins (antibodies) found in colostrum. Thin cows and those which have not been fed properly prior to calving typically produce lower quality colostrum and therefore have calves which are more susceptible to disease.

Table 2: The effect of body condition score on calf serum immunoglobulin levels

Calf serum immunoglobulin	Body Condition Score			
	1	2	3	3+
Immunoglobulin G	146	157	193	304
Immunoglobulin M	1998	2179	2310	2349

The forages available on farm are crucial to provide a base for the cows' diet. Depending on the forages available different actions will need to be taken to ensure the cows reach calving next spring in the target condition.

Autumn calving suckler cows

By now most autumn calving herds will have started calving, the good grass growth seen this autumn in many areas will have benefitted both cows and calves. The main priorities for these cows throughout the winter months is to maintain condition whilst lactating to ensure they get back in calf. Body condition score targets for autumn calving cows are shown below.

Table 3: Body condition score targets for Autumn calving suckler cows

	Calving	Service	Housing
Target Body Condition Score	3.0	2.5-3.0	3.0

Good quality forages are the easiest, cost effective answer to providing autumn calving cows with the nutrition required for maintenance, reproduction and milk production. Every farm will be different but you need to optimise the quality of any forage on farm to get the best return from it. Farms with poorer forage need to consider how to supplement to ensure requirements are met, options include fodder beet, moist feeds, cereals, blends and compounds.

Formulating diets

Diets must provide the required nutrients for maintenance, activity, lactation, growth and pregnancy. Guidance on the nutritional requirements of suckler cows are shown below.

Rules of thumb

* Sucker cows maintenance = $5 + 0.1LW$

eg 700kg cow = $5 + 70 = 75MJ/day$

* Lactation - 1 litre milk = 5MJ/litre

eg 13 litres = 65MJ/day

Therefore total ME requirement = 140MJ/day

Table 4: Nutrient requirements

Period	DM Intake Kg	MJ ME/day	Crude Protein % DM
Dry Cow	9.5-10	75	8.5
6 weeks post calving	12.6	140	12+
18 weeks post calving	12.5	130	11.5

It is important to remember that the overall diet should be formulated to provide suckler cows with the following nutrients, not forgetting to check that fresh clean water is always available:

- Carbohydrates
- Proteins
- Fats
- Macro elements
- Trace elements
- Vitamins

