

## Avoid Major Losses In Cow Condition Over Pregnancy To Protect Calf Vigour And Growth

Condition scoring is an invaluable way to assess whether suckler cows need to lose fat, gain fat or keep the same level of fat. It has been appreciated for many years that overweight cows risk calving problems. New work at SRUC suggests that body condition affects more than the calving event, but also the viability of the calf itself. Large amounts of condition loss over pregnancy leads to smaller, less vigorous calves that grow more slowly up to weaning.

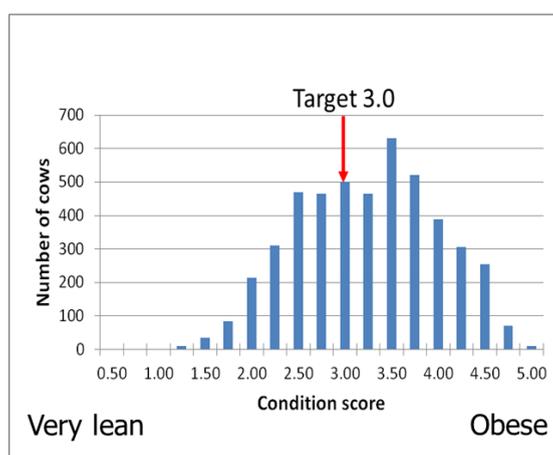
In recent decades research has shown that nutritional stress experienced by a pregnant animal can have long-term effects for the offspring. With this in mind, SRUC was funded by the Scottish Government to investigate the effects of suckler cow body condition, and the change in condition over time, on the welfare and growth of their calves.

Cow body condition was recorded in mid and late pregnancy on 3256 spring calving cows from 37 herds in Scotland and northern England. The sample of animals represented the breeds most commonly used in the industry.

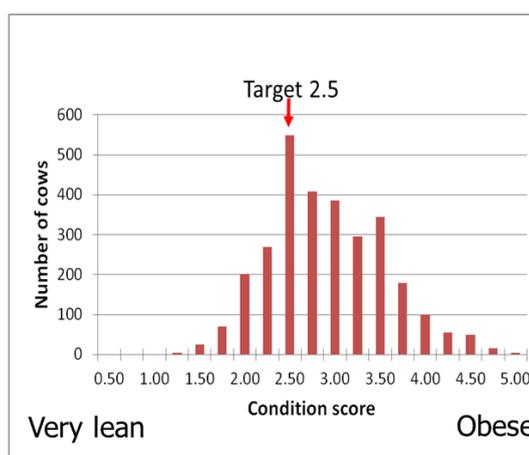
The grazing season had been long and the autumn kind, which may explain the large number of over-fit cows (see graphs below). The graphs show large variation around the usual condition score targets of approximately 3 at the start of winter housing and 2.5 at spring calving. Only 41% of cows were within +/- 0.5 condition points of these targets. A concerning number of cows were much leaner than these targets.

Although the targets recommend a loss of 0.5 condition score points, in this dataset 29% of cows lost more condition than this and 15% lost more than double the condition expected.

**Mid-pregnancy**



**Late pregnancy**



The SRUC analysis showed that:

- Cows that were 'lean' in late pregnancy (more than 0.5 condition points below target) had calves that were 7% less vigorous.
- Cows that lost more than 0.5 condition points between mid and late pregnancy had calves that were 5% smaller at birth than cows that stayed within 0.5 points, and 13% smaller than cows that gained more than 0.5 points.

- Calf weight gain to weaning was around 1.5% better if their mother had stayed within 0.5 condition points between mid and late pregnancy as compared to gaining or losing condition.

The analysis accounted for differences between breeds, farms, cow ages, calf sex and the exact stage of pregnancy at the time of recording. Although these percentages may appear small, across a herd they may have an important effect on calf viability and growth during the important early months of life.

Overall, the results indicate that substantial condition loss over pregnancy is likely to have long-term detrimental effects on the calf.

Condition scoring is best performed by using the hands to palpate fat depth around the transverse processes (the area in front of the pelvis) and the tail head. This takes a matter of seconds and can be done whenever cows are handled for routine procedures. However, earlier Scottish Government funded work at SRUC suggested as few as 4% of Scottish farmers use this approach, preferring to judge condition by eye. Although assessment by eye is better than no assessment at all, it is much less accurate as leanness can be masked by a thick coat.



As a rough rule of thumb, the transverse processes should be felt without pressing too hard with the hands. The bones should not feel sharp or pointed but should have a substantial fat cover. If the ends of the processes feel sharp the animal is likely to be too lean. If they can't be felt at all the cow is probably carrying too much condition.

Condition scoring is only valuable if the information is used. It is important to condition score as early in pregnancy as possible to allow very gradual adjustments in condition. Severe weight loss should be avoided due to the risks to the calf outlined above. Where possible, thin cows should be managed separately from fatter cows. Managing them in one group may allow more competitive cows to gain weight at the expense of less competitive ones which will increase the variation in condition in the herd.

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