



Article for Farm n Equine, December 2009 issue

## FEEDING EWES IN MID PREGNANCY

**In this month's ruminant nutrition article, Rumenco technical manager David Thornton discusses the importance of good nutrition for in-lamb ewes at this time of year and highlights the importance of feeding the placenta during the mid pregnancy period.**

During mild autumns, ewes are usually put to the tup in pretty good body condition. However, remember that the grass during such seasons often has very high moisture content and low dry matter.

Imagine a pregnant ewe trying to contend with this sort of material as her only feed. Low dry matter grass of variable nutritive value is bound to give rise to variation in intakes depending on how fast she can consume it and how well she digests it – and all of this with the onset of pregnancy going on in the background and all its associated demands.

No wonder then that when lambing performance is analysed, the worst results are in years when the ewes have lost most body condition in early and mid-pregnancy. Great care is generally taken during the tupping period to achieve optimum body condition, usually by careful grazing management and judicious use of supplementary feeding. But the early in-lamb ewe is often forgotten until 8-6 weeks before she is expected to lamb.

The relationship observed between loss in weight of the ewe between November and February in some large hill flocks was recorded by the SAC a few years ago and is shown below:

	<u>Ewe Body Weight in Mid November (kg)</u>	<u>Ewe Body Weight in Mid February (kg)</u>	<u>Loss in Weight November - February (kg)</u>	<u>Weaning %</u>
Year 1	57.3	48.9	8.4	94
Year 2	55.3	51.0	4.3	100
Year 3	56.1	50.7	5.4	83
Year 4	57.2	56.1	1.1	115
Year 5	57.4	52.7	4.7	109
Year 6	55.1	48.0	7.1	107

Note that weaning percentage was generally lower in years where the ewes lost most weight in the mid-pregnancy period!

These observations were made on extensive hill flocks with relatively low weaning percentages, which could possibly have been improved by controlling loss in body condition.

In lowland flocks with an average weaning percentage of around 155% you might not expect such dramatic results as these, but it must be remembered that the difference in profitability of a ewe producing a single lamb and a ewe producing two lambs is around £40, so any cost effective method of improving weaning percentage must be worth consideration.

In a box:

### **FEED THE PLACENTA**

**Rumenco has for a number of years advocated the importance of good nutrition for ewes during the mid-pregnancy period. Trial work suggests that under-nutrition in this period affects placental development and size, rather than foetal development and size.**

Foetal development appears to be more sensitive to the nutritional plane in early pregnancy (i.e. up to about day 21 of pregnancy) and again in late pregnancy (i.e. the final 6 weeks), but is related to the amount of placental tissue present.

Most studies on the affects of nutrition during pregnancy use lamb birthweight as the main criterion for measurement. This is important as it will determine the lamb's ability to survive under poor lambing conditions. However, don't forget that if a ewe is able to maintain the body condition gained in the period post weaning to tugging throughout mid-pregnancy then she is more likely to remain in-lamb (less foetal resorption), requires lower rates of feeding in late pregnancy and is better able to fight off infectious disease.

Another study carried out in Scotland with hill ewes on the same farm over a three year period indicated the benefits of supplementation in mid-pregnancy using Rumevite High Energy + Protein blocks.

	<u>Ewes</u> <u>Supplemented</u> <u>with Rumevite</u>	<u>Unsupplemented</u> <u>Ewes</u>
Ewe weight loss November - February (kg)	3.5	5.3
Percentage barren ewes	5.8	7.0
Percentage thin ewes	12.5	16.8
Percentage ewes rearing twins	14.8	8.8

Intake of Rumevite High Energy + Protein from November to February is typically 100g/ewe/day, which means that a total of about half a block per ewe is consumed. In this study the number of barren ewes was reduced by 1.2% and the number of twins was increased by 6%.

Partial compensation for poor mid-pregnancy nutrition might occur with higher feeding of concentrates in late pregnancy, although this is unlikely to happen if the high plane of nutrition is introduced too late. Very thin ewes in late pregnancy are more likely to

channel nutrients towards restoring their own body condition rather than improving foetal nutrition. The consequences are usually high feed bills and lambs which are too small at birth.

The evidence would suggest that if weight loss in mid-pregnancy is more than 10% of liveweight at tugging time then lamb birthweight is likely to be reduced and survival rate might be compromised. These effects are likely to be greater in young ewes, older ewes bearing twins and in harsh outdoor lambing conditions.

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**Picture of David Thornton:**

David Thornton has been with Rumenco for 28 years. He is a respected nutritionist and has helped many beef, dairy and sheep producers maximise the value of home grown forages through cost-effective supplementary feeding of Rumevite feedblocks, Supalyx buckets and the wider range of Rumenco feed products.

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