

If you don't weigh them, how do you know how they are doing?

If you want to sell lambs at a premium market price; reduce production costs and increase the carrying capacity of your farm, measuring lamb performance is key

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T eagasc established a research and demonstration farm at Athenry in 2011. The aim was to develop a profitable and sustainable grass-based system of sheep production. Figures available from this project provide a useful guide as to what performance to expect from a well-managed system under Irish conditions.

Lamb birth weights for 2014 for the research / demonstration farm are presented in Table 1. While the figures for 2015 were not fully analysed at time of going to print, they are similar to the figures for 2014 as are the pre-weaning growth rates achieved in 2012 and 2013.

The BETTER Farm Programme for sheep was established in 2008. The objective of this initiative is to provide an opportunity to apply technologies developed from various sheep research programmes on commercial farms and quantify the benefits. The Programme comprises a number of lowland and hill commercial farms located throughout the country.

The birth weights being achieved on the lowland farms involved in the BETTER Farm Programme are consistent with those on the research / demonstration farm at Teagasc Athenry. These birth weights are achieved primarily due to adequate ewe nutrition, particularly in late pregnancy.

Lamb birth weights that deviate significantly from these figures indicate some problem in ewe management during pregnancy most likely involving nutrition or flock health. Breed can also play a part, maternal



Young lambs can be weighed using a simple luggage scales.

sires such as Belclare or Lleyl lead to somewhat lighter lambs at birth.

Lamb growth rate

When monitoring performance, growth rate is usually measured in grammes per lamb per day (g/lamb/

day). Growth rate can be assessed for any given period by weighing lambs at the start and at the end of the period.

While an overall target lamb growth rate pre weaning of 300 g/lamb/day may be deemed desirable, even on a well-managed system this is difficult

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fertilizer

Table 1: Lamb birth weights for the research farm at Athenry for single, twins and triplets in 2014

Birth type	Birth weight
Singles	6.0 kg
Twins	5.0 kg
Triplets	4.1 kg

Table 2: Lamb performance pre-weaning on the research farm at Athenry in 2014

System	0-6 weeks GR (g/day)	0-8 weeks GR (g/day)	0-12 weeks GR (g/day)	0-14 weeks GR (g/day)	Weaning Wt.
10 ewe/ha	294	280	286	272	31.86
12 ewe/ha	291	286	276	263	31.28

Table 3: Effect of creep feed on lamb weaning weight

Grass height	Creep feed (g/day)		
	0	300	600
5	31.4	34.3	36.9
6	33.7	36.7	37.5

Table 4: The effect of pasture type and pasture height on lamb performance post-weaning

Pasture type	Post grazing height (cm)		
	4	5	6
Grass only	100	140	160
Grass / clover	117	173	222

to average across all lambs. On the research / demonstration farm at Teagasc Athenry, lambs are weighed at birth, six, eight, 12 weeks and again when weaned at 14 weeks.

Lamb performance pre-weaning in 2014 for the research / demonstration farm for the 10 and 12 ewes per hectare flocks are presented in Table 2.

Creep Feeding

The data presented so far highlights performance from grass only systems. However, creep feed is regularly offered to lambs while they are still being reared by ewes.

Teagasc research has shown the benefit of creep feeding in terms of lamb performance. Lambs were offered either 300g or 600g of concentrates per lamb / day commencing when the lambs were about three weeks old. They were stocked on a set stocking basis with a sward height of either 5 or 6cm. The results are presented in Table 3.

- When 300g concentrates were offered to lambs on the 5cm sward, weaning weight was similar to that for lambs offered no concentrates on a 6cm sward. This shows that creep feed may simply be a replacement for good grassland management. The cheaper option is to ensure at least 6cm of grass is available for ewes rearing young lambs in spring.
- Offering 300g concentrates when 6cm of grass is provided, gives extra performance and results in lambs 3kg heavier at weaning. This brings forward sale date by approximately 2½ to 3 weeks. The financial benefit depends on the market at the time of year and the ability to sell lambs earlier for a premium price. However, it is usually uneconomic to feed concentrates when adequate grass is available.
- When lambs are offered a grass sward of 6cm, there is very little benefit in increasing from 300g to 600g concentrates.



Lambs should be weighed regularly to check growth rate

Questions to ask if lambs are not performing as you expect:

- Is there adequate grass and if not, why?
- Is there too much grass leading to stem and dead material?
- Is there a problem with paddock layout?
- Are there health issues to be addressed? (e.g. worms, coccidiosis, liver-fluke, lameness, etc.)
- Is there a possible deficiency, especially Vitamin B12 for which Cobalt may be a solution?
- What can be done to redress these issues and improve the business for the future?

Post-weaning performance

As with pre-weaning, post-weaning growth rate is influenced by the quantity and quality of grass available. The effect of type and pasture height on lamb performance post weaning is presented in Table 4. The ideal post grazing grass height for lambs is 6cm. To graze tighter post weaning forces lambs to eat into stem and dead leaf that has built up over the spring and early summer.

Ewes drying off or dry ewes in good condition should be used to graze the pasture tightly (3.5 to 4cm) after the lambs. Cleaning out the pasture ensures good quality grass is available for the next rotation. The impact of clover on lamb growth rate is also evident from these figures. The figures presented in Table 4 relate to the period from weaning to sale.

In 2014, lambs on the research / demonstration farm at Teagasc Athenry grew at 154 and 137 grams per lamb per day after weaning for the 10 and 12 ewes per hectare groups respectively. However, in early summer, higher growth rates are achieved from grass alone. Figures from the BETTER Farm programme show that lambs can grow typically at 250 g/day in the weeks immediately after weaning, with this declining to less than 100 g/day by November.

Conclusion

Farmers should weigh all of their lambs on a number of occasions to check how they are performing. As a simple alternative, a small proportion of lambs should be selected, at random. These should be weighed and clearly marked so that the same lambs can be selected for weighing again after a number of weeks. This will allow you to calculate growth rate per day.

If performance is falling short of target, questions should be asked and adjustments made to redress the situation.