

Making the most of grazed grass

Dr Philip Creighton — grassland researcher, Teagasc (Irish Agriculture and Food Development Authority)



In Ireland, sheep meat production is an important industry with around 80 per cent of the product exported. Ireland has around 2.5 million ewes split amongst 33,000 flocks. Around 14,000 of these producers have fewer than 50 ewes and there are fewer than 500 flocks with more than 500 ewes, which generates some challenges.

The Irish government initiative, [Food Harvest 2020](#), wants sheep meat production to increase by 20 per cent by 2020. My job is to exploit Ireland's competitive advantage to grow grass and convert it into meat.

If we look at where the industry is currently is (see table below), we have some potential for improvement. The high-performing targets are not for the entire industry, but an aspiration for the top producers.



	National average	High performing targets
Stocking rate (ewes/ha)	7.4 (3 ewes/acre)	13 (5.3 ewes/acre)
Lambs weaned per ewe	1.3	1.8
Carcase output per ha (kg)	189 (9 lambs per ha)	460 (23 lambs per ha)
Nitrogen used (kg/ha)	73.5	159
Concentrates fed (kg/ewe)	50	30

The key to moving towards the high-performing targets is excellent grassland management, as both grass growth and utilisation need to increase.

It was decided that a sheep research demo farm should be established at Teagasc's Animal and Grassland Research and Innovation Centre at Athenry in Co. Galway. It started at tupping time in 2011, with the aim of demonstrating how the high-performing targets can be achieved.

One of the studies is looking at stocking rate with 14 ewes/ha (6 ewes/ac), 12 ewes/ha (5 ewes/ac) and 10 ewes/ha (4 ewes/ac). The results show to date that a higher percentage of the lambs kept in a lower stocking density were ready by 1 October, (see results in table on page 2).

Ewes per hectare	Percentage of lambs finished by 1 October	
	Lambs fed grass and concentrates	Lambs fed grass only
14 ewes (6 ewes/acre)	58	81
12 ewes (5 ewes/acre)	66	93
10 ewes (4 ewes/acre)	80	97

The results also show for every two ewes per ha there is an increase of 58 kg carcass per ha. However, for the high stocking rate system 6.2 kg of concentrates were needed per kg carcass compared to 0.9 kg for the lowest stocking rate.

There were significantly lower growth rates to eight weeks of age on the high stocking rate system with the average weaning weight being 3 kg lighter compared to the lowest stocking rate. This is likely to have a knock-on effect on the finishing times with lambs on the high stocking rate system spending longer on farm by about a month.

We have been using a five paddock rotational grazing system on each of stocking rates to aim to boost grass growth and utilisation. For the high, medium and low stocking rates the grass utilised was 11.6, 10.1 and 9.1t DM/ha respectively, but this was in turn due to nitrogen levels being kept at 13 kg N per ewe, which led to 130, 156 and 182 kg N being used. The amount utilised is still impressive and very few producers will know what they grow.

So it seems, the stocking rate needs to be balanced to the farm's potential, chasing high stocking rates can increase costs and reduce performance.

[Look at the Teagasc website for more details of this project](#)

More information about grazing strategies is available in the
EBLEX Better Returns beef and sheep manual 8
[Planning grazing strategies for Better Returns](#)