

Farm Facts: An upland farm of around 200ha, which includes a flock of 1500 mainly North Country Cheviot ewes. The farm introduced Romney and New Zealand Texel genetics recently. A New Zealand style system has been incorporated which means the flock is run under an A&B framework. Weaned ewe lambs that are potential replacements are kept in one 'mob' as a performance indicator to eliminate weaker animals. Any lamb that doesn't thrive within these conditions is sold. A herd of 45 suckler cattle is also kept to complement the sheep grazing



The fundamentals of the Pentre farm production system revolves around exceedingly good grassland management. Tom Jones, farming alongside his father, has adopted many complimentary management strategies to ensure that the farm's grass production is utilised to its full potential. Mr Jones feels that management is the key driver of grass growth and it is important to adapt to different climates and topographies.

On his trip to New Zealand, as part of a HCC Scholarship, Mr Jones discovered Plantain. Plantain is a perennial herb similar to chicory and has many of the same properties. The crop can be used within grazing systems for livestock and it was evident to Mr Jones that the crop worked well when incorporated in a grazing system for finishing lambs.

Plantain has a deep fibrous root system and is particularly good at performing well in lower fertility soils and also responds particularly well to nitrogen. The crop contains high levels of calcium, magnesium, phosphorous, sodium, zinc, copper and cobalt, and supports the animal's ability to retain copper, sodium and magnesium.

After learning about the way Plantain was used, Mr Jones had to try it out for himself and so planned to compare the system against his usual grass and clover leys the following season.

In 2015 for the first time a Plantain and white clover mix was sown into sprayed-off permanent pasture at 4kg/acre. The plantain established well and Mr Jones was very impressed with the results. 'The plantain has not disappointed thus far; I have seen an increase in killing out percentage, lambs are finishing earlier and it provides good forage for ewes after lambing'.

The table on below provides evidence of the benefits of Plantain when compared to the current grass and clover ley in use on Mr Jones' farm.

Input	Plantain	Grass
Seed	£44	£59
Fertiliser	£17.40	£54
Spray & Drilling	£34	£34
<i>Total</i>	<i>£95.40</i>	<i>£147</i>

207 Lambs	Plantain	Grass
Weight entering	30.2kg	30.9kg
Live weight after 60 days	38.2kg	39.2kg
Lambs finished after 60 days	39 with average weight of 42.3kg	34 with average weight of 43.1kg
Killed out @	841.23kg	659.60
Average KO%	21.57kg	19.4kg

It is evident that Plantain offers a cost effective method which can easily be incorporated into grassland systems. The crop is cheaper to sow and requires less nitrogen than grass and clover leys resulting in lower costs of fertiliser. It is surprising that the achieved Killing out % is much higher for Plantain than it is for the grass system even though the live weights at 60 days were higher from the grass ley.

Plantain has proved successful at Pentre farm, it has adapted well and provides an excellent forage for finishing lambs. It has contributed to reducing the costs of concentrates and provides additional health benefits to the livestock.

Plantain Facts

- High in protein, typically 19.8 - 28.1 per cent crude protein
- Fibrous forage, allowing the animal to ruminate
- High D-value, and contains tannins and minerals
- Contributes to a better soil structure in ground than rye-grass
- Mild anthelmintic properties
- 11 per cent dry matter
- Drought-resisting qualities