

A major sheep open day had been planned for the Athenry Teagasc Research Centre in June of this year. In light of the current restrictions, this event is likely to be deferred to a later date and digital communication methods will be used to transfer research updates and technical messages to the sheep industry.

The Teagasc Sheep Better Farm

Programme has consistently shown that adopting the key research technologies at farm level can have a significant impact on the productivity and profitability on sheep farms.

Below, we feature a number of research updates including the areas of grassland systems, anthelmintic resistance, breeding and genetics, mineral supplementation, lamb mortality, flock

productivity, and hill lamb finishing options.



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White clover and other companion forages

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Current grazing system research projects in Teagasc Athenry are focusing on what the impact incorporating white clover and other companion forages into sheep-grazed swards has on the productivity of pasture-based lamb production systems. There is special focus on the animal, environmental and economic impacts.

These projects are split into two main studies:

- An evaluation of incorporating white clover into sheep-grazed swards at two fertiliser nitrogen and stocking rate levels on the productivity of pasture-based lamb production systems.
- An evaluation of alternative forages, in combination with perennial ryegrass, to increase animal intake, performance and output in sheep pasture-based production systems.

Study one is investigating two stocking rate levels (11 or 13 ewes/ha) with three pasture treatments at each stocking rate:

- 1) Perennial ryegrass receiving 145kg N/ha/yr.
- 2) Perennial ryegrass plus white clover receiving 145kg N/ha/yr.
- 3) Perennial ryegrass plus white clover receiving 90kg N/ha/yr.

Key findings to-date show that the inclusion of white clover in the sward relative to perennial ryegrass alone resulted in lambs reaching slaughter weight nine days faster.

In terms of sward, DM production the grass-only swards grew 13,483kgDM/ha, grass clover swards at 145kg N/ha grew 13,926kg DM/ha and the grass clover swards at 90kg



N/ha grew 13,590kg DM/ha.

While a small difference is evident between treatments, a positive aspect is that the low N treatment (90kg N/ha) is growing just as much grass or slightly more grass than the other high N treatments (145kg N/ha), with or without white clover inclusion.

This is the third year (including establishment year) that this has been achieved. Sward clover content averaged 7% of the sward pre-weaning and 15% post-weaning for the grass and clover treatments. This has major implications from both an economic and an environmental point of view, while also improving animal performance. Study two consists of five forage or forage mixture treatments:

- 1) Perennial ryegrass only.

- 2) Perennial ryegrass plus white clover.

- 3) Perennial ryegrass plus grazing-tolerant red clover.

- 4) Perennial ryegrass plus plantain.

- 5) Perennial ryegrass plus chicory.

This study is part of the PhD studies of Walsh Scholar Lisa McGrane.

“A key focus of this study will be plot-based trials, which will be grazed by sheep, investigating establishment method, post-grazing height and establishment seeding rate effects of the grass and companion forage mixtures, in an effort to identify if any of these key management steps influence the persistency and longevity of the companion forages, as well as their contribution to animal and sward performance,” says Lisa.