

Demonstration Sites Recruited

	Target	Recruited
Innovation Site	8	8
Demonstration Site	12	12
Focus Site	36	36

Location of demonstration sites where projects and/or events have taken place



- = Innovation Sites
- = Demonstration Sites
- = Focus Sites

Events held on the Demonstration site Network

YEAR 1 - 1 October 2015 – 30 September 2016

Description	Number of sites	Annual target for events	Progress against annual target (running total)
		Events held	Events held
Innovation Site events	8	30	11
Demonstration Site events	12	36	12
Focus Site events	36	54	33

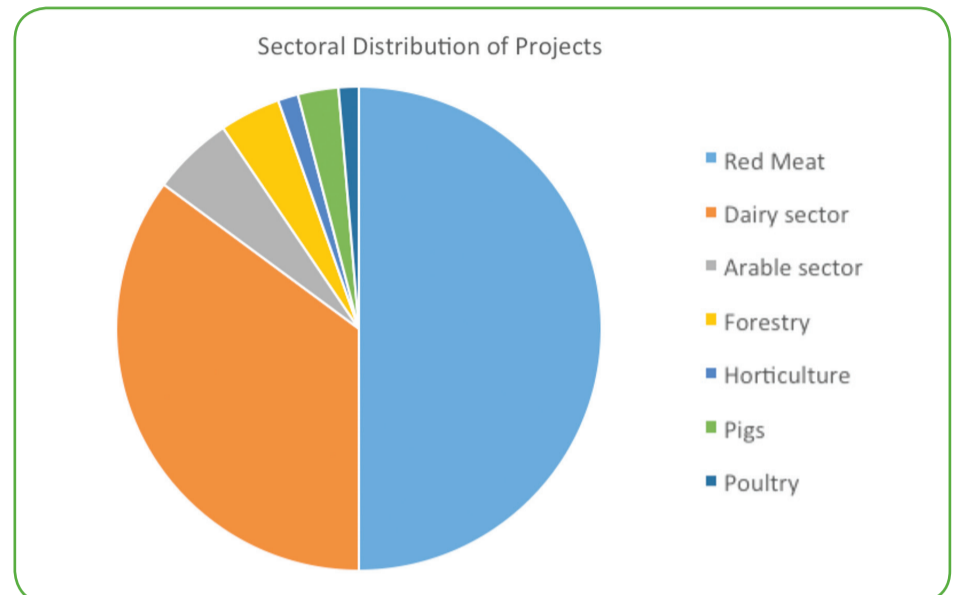
YEAR 2 - 1 October 2016 – 30 November 2016

Description	Number of sites	Annual target for events	Progress against annual target (running total)
		Events held	Events held
Innovation Site events	8	30	2
Demonstration Site events	12	36	9
Focus Site events	36	54	3

The target number of sites for year 1 has been achieved, although it has taken the full 12 months to identify, approve and establish projects on these sites. Therefore there has been a delay in delivering meetings to disseminate project results, which is reflected in the number of events held up to now.

Distribution of activity on the Demonstration Site Network

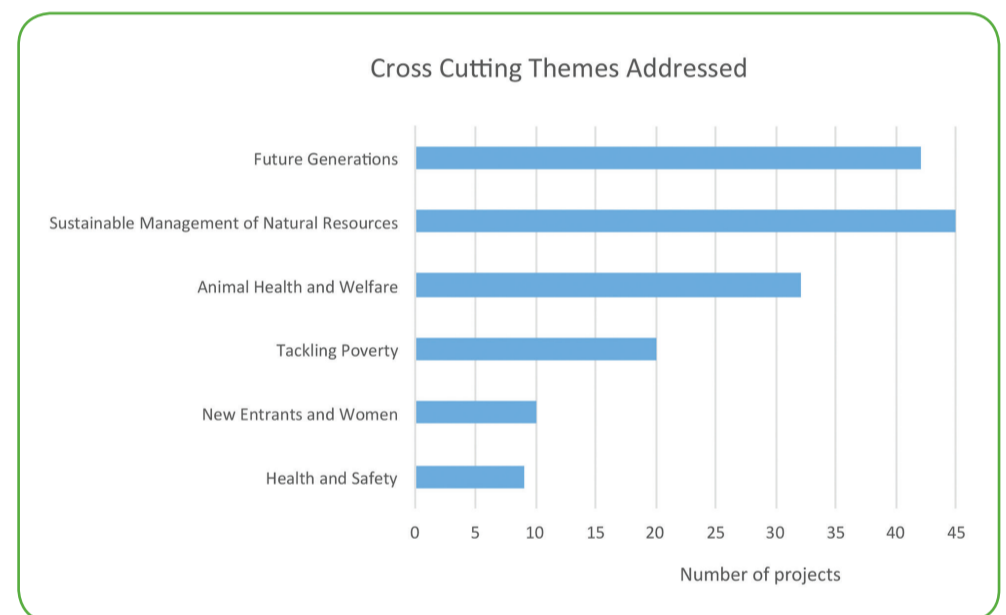
SECTORAL SPLIT



Please note some projects address more than one sector.

Cross cutting themes

The following graph demonstrates the themes which are addressed in the various projects undertaken within the Demonstration Site Network.



Please note some projects address more than one theme.

Baseline Studies

All Innovation and Demonstration Sites have undertaken baseline studies. These reports provide an opportunity to identify areas of strength and weaknesses within the business.

One example of this is where the study identified that a demonstration site was performing below average when compared to similar Hill Farms. As a result of this evaluation we have implemented a number of initiatives to improve sheep health and productivity.

The main initiative has been to focus on sheep lameness which is an underlying cause of poor productivity.

RESULTS TO DATE

→ At the first assessment lameness was **above 10%**

Four weeks after the plan was implemented...

→ **less than 10%** of ewes in the flock were lame

...and 2 months later -

→ this was down to **less than 5%**

Both the number of ewes affected and the severity of lesions present has been reduced. This has led to improved ewe condition over the tugging period which will hopefully reflect on the number of lambs born.

We look forwards to having the scanning results!

Projects and trials initiated on Demonstration Network during September – November 2016:

- 1) Evaluating the performance and productivity of the Welsh and Hybrid pig
- 2) Sward improvement (Dairy farm)
- 3) Tackling ewe lameness
- 4) Viability of small farm conifer blocks
- 5) Genomic carcase traits
- 6) Cow cameras
- 7) Five options for lamb finishing
- 8) The suitability of different clovers in an organic system
- 9) The potential for out wintering options
- 10) Preventative measures to improve calf health
- 11) Variable rate fertiliser use in grassland

UPCOMING PROJECTS:

Innovation Site

APPLYING TECHNOLOGY FOR EARLY LAMENESS DETECTION

Technology could play a greater role in future in managing and reducing cow lameness which can be extremely costly for a dairy herd. At Trawscoed Innovation Site a 'Step Matrix' system will be used to measure the force and direction of hoof placement of cows exiting the parlour. This allows daily analysis of data, earlier detection of locomotion changes and recovery monitoring.

Additionally GPS technology will also be utilised to monitor cow behaviour (grazing, resting and walking changes) which indicate lameness before the cow's gait has visibly altered. Technology is commonly used in housed herds for monitoring fertility and health traits, but is less common in the grazing herd. This project will be run throughout the 2017 grazing season monitoring and scientifically evaluating cow behaviour to explore ways of identifying lameness earlier.

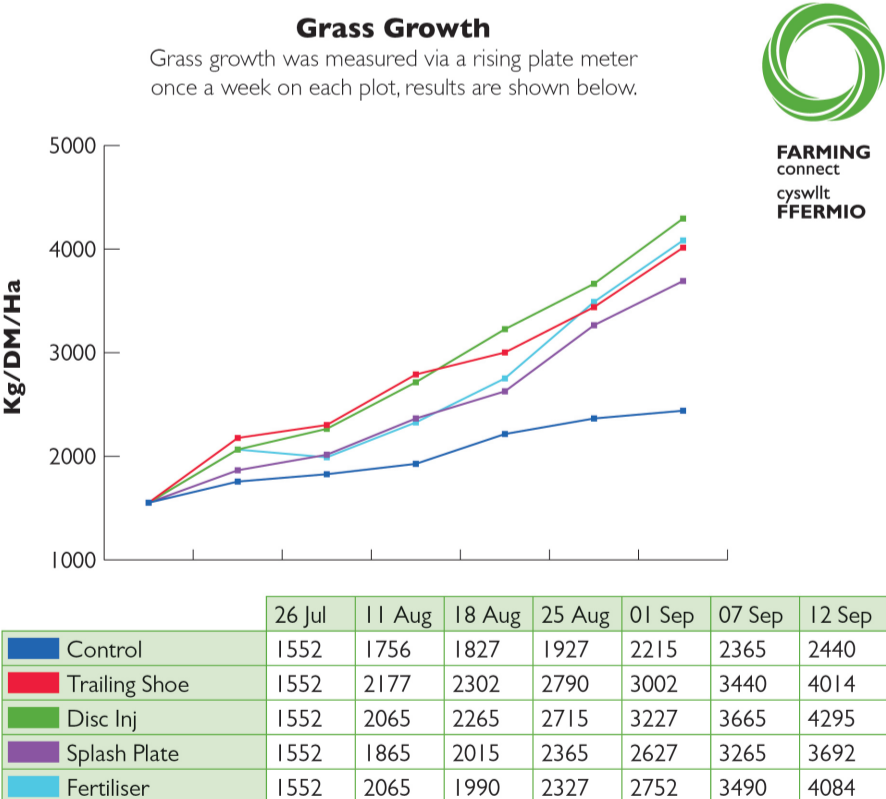
PROJECT OUTCOMES - Examples

DEMONSTRATION SITE

Anaerobic Digestate as biofertiliser

Digestate is a by-product of anaerobic digestion and a recent Demonstration Site project at Newton Farm, Scethrog, Brecon compared the use of liquid digestate applied in three different ways and compared to compound fertiliser.

Grass growth was recorded every week for seven weeks and the results were:



Using this year's average fertiliser prices, the difference in cost between fertiliser and digestate was substantial -

Total cost of compound fertiliser
= **£45.40 of nutrients/acre** (not including spreading cost)

Digestate cost £2/tonne spread @ 9.11 t/acre = **£18 of nutrients/acre**

KEY MESSAGES FROM THE PROJECT:

Apply sensibly with consideration to the environment, soil index and crop demand.

FOCUS SITES

Improving suckler cow efficiency by optimising mature cow body weight

The project aims to evaluate changes in cow mature weight and cow efficiency in terms of weight of calf weaned as a percentage of cow weight. This is against a background of change from native to continental genetics together with the use of high growth EBV sires to produce replacement heifers.

Lower cow mature weights would result in reduced cow maintenance costs thereby increasing efficiency and profitability. Data collected to date demonstrates that keeping a smaller cow does not necessarily result in the production of lighter calves.

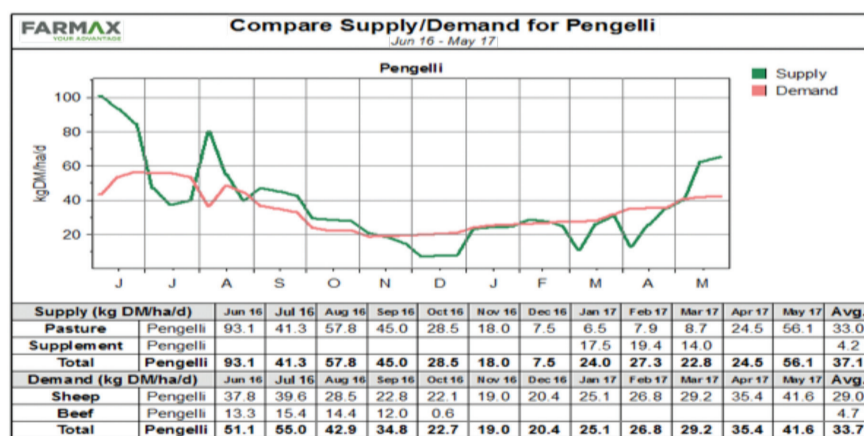
Converting a set stocking beef and sheep unit to a rotational grazing system

The project demonstrates the process of converting from a set stocking beef and sheep farm to a rotational grazing system and the associated benefits. This project highlights all the practical considerations of dividing the farm up and installing all relevant infrastructure and provide a blue print to such conversions.

The farm has been divided to paddocks in order to manage and effectively coordinate grazing throughout the season.



Farmax software has provided the platform to assess and evaluate grass supply and livestock demand.



By accurately managing the grass production through rotational grazing, the allocated grass platform of 24 hectares, hosted 400 ewes and their lambs through the growing season. Additionally to previous years the same grazing platform of 24 hectares has provided an extra 220 big bales of silage, demonstrating significant improvement in utilization. At an estimated £15/bale this would equate to an extra £3,300, or equivalent to increasing the stocking rate by 25%.

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