

Roadmap to Net Zero

Soil 101:

- [Soil Testing](#)
- [Measuring and Assessing Soil Carbon](#)
- [Earthworms](#)
- [The importance of managing soil pH](#)
- [Soil Compaction](#)
- [Joel Williams at Prideaux](#)

Hedges:

- [Hedgerows for carbon capture](#)
- [Hedges, a win-win](#)

Slurry Management and Nitrogen Reduction:

- [Methane Capture from Slurry](#)
- [Slurry Separator Demo](#)
- [Reducing Nitrogen Usage in Crop Production](#)
- [Best Practice for Fertiliser Use Efficiency](#)
- [Getting Started with Foliar Feed](#)
- [Foliar Fertiliser with Tow & Fert](#)

Pasture and Grazing Management:

- [Grazing management](#)
- [Herbal Leys, the hows and whys](#)
- [Let's Talk About Grass](#)
- [Overseeding herbal leys into permanent pasture](#)
- [How to rejuvenate pastures](#)
- [Overseeding permanent pastures with herbal leys](#)

Regenerative Forage Production:

- [Making the Most of Homegrown Protein](#)
- [Maize: maximising soil health and crop yield](#)
- [Maize and soil health: how it adds up](#)
- [Optimising Silage Production](#)

Alternative Forages:

- [How to grow lucerne](#)

Agroforestry:

- [Integrating livestock and trees](#)
- [Trees for Forage](#)

Renewables:

- [Methane Capture from Slurry](#)



Dairy

Roadmap to Net Zero



Emissions on dairy farms are mainly from livestock, artificial fertiliser and bought-in feed. The Farm Net Zero (FNZ) project has produced a range of resources to help understand methods of reducing emissions and increasing sequestration. These are listed below and include factsheets from trials and reports from on-farm events, collated into practical on-farm actions..

Start with the soil:

- [Soil Testing](#) identifies the distribution of nutrients across a farm, allowing for targeted applications of fertilisers.
- [Measuring and Assessing Soil Carbon](#) creates an understanding of existing carbon stocks on farm. Increasing soil carbon content can offset emissions.
- [Earthworms](#) are an important part of a healthy farm ecosystem, cycling nutrients and aerating soil.
- [The importance of managing soil pH](#) is a vital part of reducing emissions from artificial fertiliser because incorrect soil pH disrupts fertiliser efficiency.
- [Soil Compaction](#) affects crop productivity and can require the use of excess fuel to remediate issues and fertiliser to boost productivity.
- [Joel Williams at Prideaux](#) provided a valuable insight into the process of soil carbon cycling and storage.

Grow hedges taller and thicker:

- [Hedgerows for carbon capture](#) are an important feature of the farmed landscape, as well as having major biodiversity benefits.
- [“Hedges, a win-win”](#) reports on an event held on a FNZ farm where they manage their hedgerows to increase biodiversity and carbon capture.

Focus on managing grazing and pasture quality:

- [Grazing management](#) is a crucial part of addressing emissions on livestock farms, through reduced inputs (artificial fertiliser and bought-in feed).
- [“Herbal Leys, the hows and whys”](#) explained the many benefits of herbal leys and how to manage them for dairy cows.
- [“Let’s Talk About Grass”](#) covered the practicalities of rotational grazing, including forage budgeting, electric fencing and water supply.
- [Overseeding herbal leys into permanent pasture](#) is one method of boosting productivity with few high-emissions inputs.
- [“How to rejuvenate pastures”](#) featured a rotaseeding demonstration to establish a herbal ley in one pass, reducing fuel use.
- [“Overseeding permanent pastures with herbal leys”](#) covers the results of a trial on different overseeding techniques on one FNZ monitor farm.

Use slurry efficiently and reduce artificial nitrogen fertiliser use:

- [Methane Capture from Slurry](#) can help to reduce methane emissions (a potent greenhouse gas) and reduce fossil fuel emissions by using the methane as fuel.
- A [Slurry Separator Demo](#) on one FNZ monitor farm highlighted the benefits of slurry separation for more efficient nutrient use and slurry handling.
- [Reducing Nitrogen Usage in Crop Production](#) is a key part of reducing the farm’s carbon footprint, as artificial nitrogen has a high carbon footprint.
- [“Best Practice for Fertiliser Use Efficiency”](#) explains the benefits of optimising fertiliser application to mitigate any negative environmental effects.
- [Getting Started with Foliar Feed](#) can help to reduce the use of high emissions artificial fertiliser.
- [Foliar Fertiliser with Tow & Fert](#) is one method of applying liquid inputs to both arable and grass crops.

Consider how forage can be grown more sustainably:

- [Making the Most of Homegrown Protein](#) helps to reduce emissions from bought-in feed.
- [“Maize: maximising soil health and crop yield”](#) highlights the benefits of reduced tillage and interrow cover crops in maize production.
- [“Maize and soil health: how it adds up”](#) summarises a trial by FNZ monitor farmers on reducing tillage in maize production and subsequent crops.
- [Optimising Silage Production](#) is an important method for reducing emissions per tonne of feed.

Use alternative forages to reduce bought-in feed:

- [“How to grow lucerne”](#) details the techniques used by one FNZ monitor farm who grows lucerne for silage. This crop provides high protein feed with fewer inputs.

Plant trees for agroforestry:

- [Integrating livestock and trees](#) can help reduce a farm’s carbon footprint as trees sequester carbon. They also have multiple benefits for livestock welfare.
- [Trees for Forage](#) can be a useful method of gaining the environmental benefits of tree planting while maintaining farm productivity.

Renewables can reduce emissions from electricity use:

- [Methane Capture from Slurry](#) creates renewable fuel for machinery and electricity generation, while reducing methane greenhouse gas emissions.