ECOFEED PROJECT

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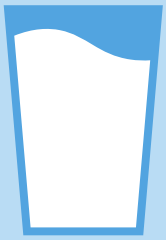
Genetic gain has huge potential to help improve the sustainability of dairy farming. It can do this in three main ways by:

- Improving the technical performance of the cow – her total milk solids yield.
- Reducing the carbon impact of each kg of milk the cow produces – her carbon footprint.
- Improving the financial performance of the cow - £PLI – a genetic index combining production, fertility and health traits.

Kite Consulting, in association with Cogent, has undertaken a project to quantify the impact of selecting for higher feed efficiency (FE), using the Ecofeed trait. Feed is one of the biggest costs on farm – both financial and environmental, so has huge potential to impact farm sustainability.



1,000KG OF MILK SOLIDS/ COW/YEAR

IMPROVED THEIR CARBON FOOTPRINT BY 11%

£PLI £69.50/ YEAR

> Around 70% of a dairy farm's carbon footprint relates to feed and enteric methane

RESULTS

TECHNICAL PERFORMANCE

All farms on the trial achieved or have exceeded **1,000kg of milk solids/cow/year** in 2023, compared to an industry average of 675kg.

On average, this equated to a **19% increase in milk solids in just 3 years**.

It is estimated that up to 50% of this improved output is down to genetics.

REDUCING CARBON IMPACT

Farms on the trial improved their herd's **carbon footprint by 11%** (range 29% to 4%) over the project period.

IMPROVING FINANCIAL PERFORMANCE

The average rate of genetic gain, quantified by **£PLI (Profitable Lifetime Index) was £69.50/year** over a 5-year period – significantly higher than the UK average of £60/year.

WHY THIS IS IMPORTANT

The trial shows that a herd's production and sustainability performances can be accelerated as a result of genomic testing and targeted genetic selection, whatever the herd's current performance.

Herds using traits such as EcoFeed as a selection criteria for breeding have the potential to further accelerate production gains and help meet carbon reduction targets in their own herd, across a pool of suppliers and the wider industry.

To hear more about the project contact Rose Jackson

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THE PROJECT

- A **3-year** trial
- In collaboration with **Cogent**
- Involved **4 farmers** on component-based milk contracts
- **Herd size** ranges from 180 to 500 cows

WHAT IS ECOFEED?

Ecofeed is a genomic trait that aims to predict the residual feed intake (RFI) in an individual bull or heifer/cow, providing farmers with a genetic feed conversion index. RFI is the difference between actual and predicted DMI (dry matter intake) based on body size and production. Ecofeed is expressed as two individual genomic traits (Ecofeed Cow and Ecofeed Heifer) and the programme uses data that goes back to 2014 including DMI data from over 10,000 heifers, and nearly 2,000 lactating cow records.