



# Unlocking Genetic Potential to Reduce Carbon Footprint of Milk

LifeStart principles have been shown through Life Cycle Assessment (LCA) to have the potential to **decrease the climate change potential of a dairy cow (kg CO2eq) by 6%**. An LCA is a methodology used to assess the carbon footprint of milk production by considering the entire life cycle of the cow.

#### What is LifeStart?

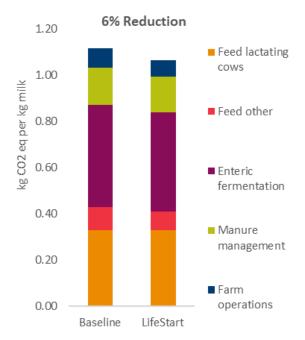
LifeStart provides evidence-based best practice related to the critical period in the first months of life; it offers the science required to unlock the full potential of dairy cows. LifeStart accredited guidelines for calf milk replacers ensure the nutritional and physical parameters are carefully considered to satisfy calf requirements. Click <a href="here">here</a> to read more about LifeStart.



## How does LifeStart Impact Carbon Footprint?

Investing in early life nutrition gives a clear and sustainable return, through robust, resilient and high performing dairy cows. This in turn allows Lifetime Daily Yield to be optimised, which is key to improving sustainability in dairy farming and reducing carbon footprint. Dairy cows that follow a LifeStart accredited program are now proven to have a:

- 14% reduction in age at first calving
- 3% shorter calving interval
- 17% lower replacement rate
- 7% higher milk produced in multiparous cows
- 4% higher milk produced in primiparous cows



### LifeStart principles can achieve a 6% reduction in carbon footprint\*

## How have Trouw Nutrition demonstrated this through an LCA?

Trouw Nutrition sought to assess the potential environmental implications of innovative feed strategies and health solutions for milk production. The LifeStart scenario utilised for the LCA model used the publication of the Dutch cooperative for cattle breeding CRV, where the technical figures of the Dutch dairy herd are published as a baseline. A comparison was then drawn on the findings obtained from the LifeStart trial conducted at Nutreco's R&D facility, Kempenshof research farm.

An LCA model was developed following ISO standards (14040:2006, 14044:2006) and guidelines from IDF (2022), PEF Guide (2019), PEFCR of dairy products (EDA, 2018), PEFCR of animal feed (FEFAC, 2020), and related references.

Investing in early life nutrition, through Feeding More Milk, optimizes Lifetime Daily Yield, key to improving sustainability in farming and reducing carbon footprint. Feeding More Milk gives a clear and sustainable return, through robust, resilient, and high performing dairy cows.

Applying both LifeStart and HealthyLife principles contributes to a 9% reduction in carbon footprint\*



