trouw nutrition
a Nutreco company

Practical guides
Sustainability series

LifeStart

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 carbon footprint (CO2e) per kg fat protein corrected milk (FPCM) 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 is a science-based platform for dairy calves that 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.

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 efficiency in dairy farming and reducing carbon footprint. From a baseline scenario when applying LifeStart principles we can achieve:

Example farm	Baseline	LifeStart
Age at 1st calving (months)	25.5	22
Calving interval (days)	408	395
Replacement rate (%)	30	25
Milk production 1st lactation (kg)	7,592	7,900
Milk production 2nd+ lactations (kg)	9,926	10,600
CO2e reduction (%)		-6% v baseline

*An LCA model for milk production was carried out in conformance with the ISO14040:2006 and ISO14044:2006 standards using LifeStart scenarios based on data from trials carried out at Nutreco's R&D facility, Kempenshof research farm.

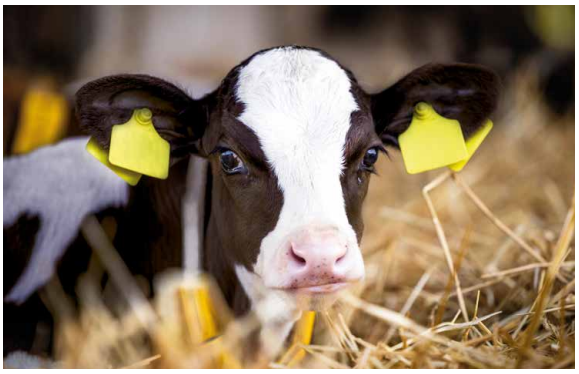
LIFESTART®
SETS LIFE PERFORMANCE

UNLOCKING GENETIC POTENTIAL

LifeStart principles can achieve a 6% reduction in carbon footprint

Improved efficiency, productivity and reduction in carbon footprint are achieved by:

- Healthy animals that grow well
- Fewer animals
- Less feed
- Reduced enteric emissions
- Improved longevity



Graph showing an example of how LifeStart interventions can improve carbon footprint by 6% by emissions category