

Practical guides Sustainability series



Precision Nutrition for sustainable dairy farming

Trouw Nutrition's NutriOpt platform provides cutting-edge solutions for Precision Nutrition, helping dairy farmers, feed advisors, processors and retailers optimise feed efficiency, animal health and sustainability. Precision Nutrition principles have been shown through life cycle assessment (LCA) to decrease the carbon footprint (CO2e) per kg fat protein corrected milk (FPCM) by 10%.

This guide highlights five key components of NutriOpt that drive sustainability and performance.



Accurate and frequent analysis NIRS and NOA



MyNutriOpt

t Environmental impact of feed MyFeedPrint



Precision Nutrition on farm Dairy Ration Model



Environmental impact / kg FPCM MyMilkPrint

Accurate and frequent analysis with NIR services

Near-Infrared Spectroscopy (NIR) technology allows real-time feed and raw material analysis, ensuring optimal ration formulation and nutritional consistency enabling:

Instant feed quality analysis: Assess nutritional values in minutes, eliminating delays from lab testing.

Frequent monitoring: Conduct multiple tests daily to adapt to variable feed ingredients.

Cost savings and reduced waste: Adjust feed formulations immediately, optimising ingredient use.

By leveraging NIR services, farmers and feed advisors can maintain consistent feed quality, reducing inefficiencies and ensuring cows receive the best possible nutrition.





Data management with MyNutriOpt

MyNutriOpt serves as a central platform for storing, analysing and managing feed data. It enhances precision feeding strategies through:

Real-time access to feed analysis results: Ensure up-to-date nutritional insights for optimal rationing.

Seamless collaboration: Share feed data with nutritionists, feed advisors and farm managers.

Better decision-making: Use predictive modelling and trend analysis to optimise feeding strategies.

By integrating MyNutriOpt, dairy farms and feed suppliers gain full visibility over nutritional data, improving feed efficiency and consistency.

Environmental impact of feed with MyFeedPrint

The **MyFeedPrint** tool quantifies the environmental footprint of different feed ingredients, enabling sustainable feed choices. It helps stakeholders:

Measure greenhouse gas (GHG) emissions: Assess the carbon footprint of feed ingredients.

Impact sourcing: Identify sustainable feed alternatives that lower environmental impact.

Support sustainability goals: Align feeding strategies with industry and regulatory standards.

By using MyFeedPrint, processors and feed advisors can reduce the environmental footprint of dairy production while maintaining performance.



Optimal diets on farm with the NutriOpt Dairy Model

The **NutriOpt Dairy Model** helps farmers and nutritionists formulate precise dairy cow diets by simulating digestive processes. It ensures:

Balanced rations for optimal milk production: Adjust diets based on cow requirements and feed composition.

Rumen health optimisation: Prevent digestive disorders by ensuring a stable and efficient rumen environment.

Cost-effective feeding: Maximise milk yield while minimising feed costs.

By utilising the NutriOpt Dairy Model, farmers can improve productivity while reducing resource wastage.





Measuring the impact on product level with MyMilkPrint

MyMilkPrint quantifies the environmental footprint of dairy production at the farm and product level, allowing farmers and processors to:

Track sustainability metrics: Measure carbon footprint per litre of milk produced.

Improve efficiency: Identify areas for reducing emissions and optimising feed strategies.

Enhance market positioning: Meet consumer demand for sustainable dairy products.

Forage (kg DMI)	Compound (kg)	Footprint of diet (kg CO2e)
10	10	9.0
12	9	8.1
14	7	7.1
16	5	5.4

With MyMilkPrint, stakeholders can demonstrate commitment to sustainability while optimising economic performance.

Practical application

More milk from forage: Requires frequent forage analysis and ration adjustments.

Higher silage quality: Allows increased forage feeding, reducing compound feed reliance.

Sustainable compound feed sourcing: Using MyFeedPrint lowers the environmental footprint.

Balanced rations with the Dairy Model: Ensures efficiency, cost savings and optimal cow health and performance.

Measuring impact with MyMilkPrint: Quantifies sustainability gains from improved feeding strategies.

BEYOND NET ZERO

By integrating NIR Services, MyNutriOpt, MyFeedPrint, the NutriOpt Dairy Model and MyMilkPrint, dairy industry stakeholders can enhance feed efficiency, lower environmental impact and drive sustainability across the supply chain. These tools empower farmers, feed advisors, processors and retailers to make data-driven decisions that benefit both the environment and business profitability.

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