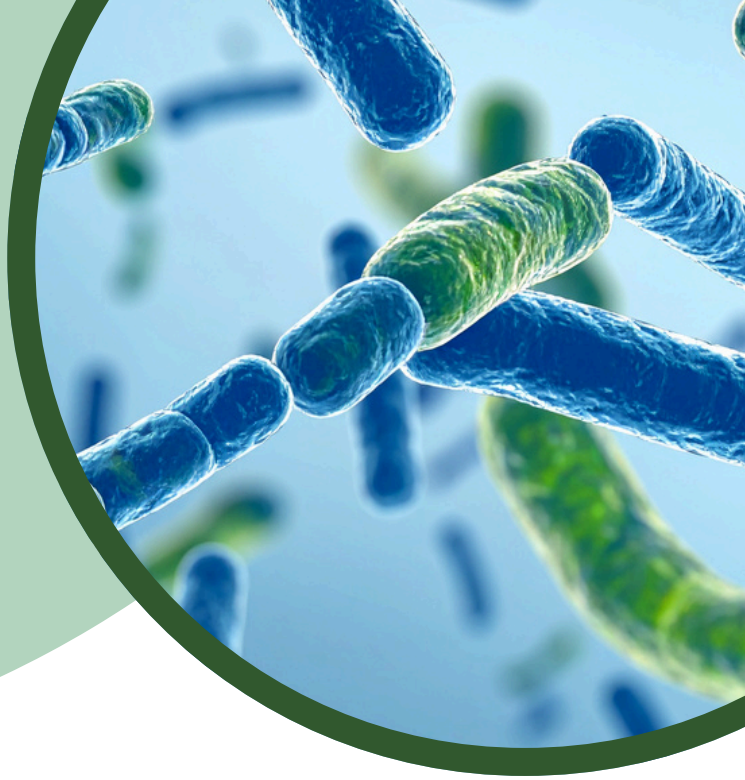
Phileo by Lesaffre

Case Study

Yeast pro/postbiotics usage and impact on CO_2 reduction in Europe



Overview

In an effort to achieve sustainable improvements, the use of specific yeast probiotics and postbiotics in ruminant and poultry feed could reduce by up to 2.5% the global CO_2 emissions out of the 502 MiT eq CO_2 generated by livestock in Europe per year - equivalent to removing 9.7 million out of 250 million new cars from EU roads per year or planting of 568 million trees!

Impact

Results showed reductions of carbon footprint of animal production when using probiotics and postbiotics:

- -5% CO_2 eq per kg of milk when using probiotics (early/mid lactation in dairy)
- -5% CO_2 eq per kg of live body weight when using probiotics (fattening beef)
- -8.4% CO_2 eq per kg of live body weight when using postbiotics (full cycle broilers)

As the % reduction in LCA is based on a specific supplementation period, the total CO_2 saved is calculated on the average value obtained in kg CO_2 eq / kg milk or meat for the full animal production period.

Supporting Materials:

- Quantification of the Environmental Impact of Feeding Yeast Probiotic *Saccharomyces cerevisiae* Actisaf Sc 47 in Dairy Cow: A Life Cycle Assessment Approach
- Does the Use of the Yeast Probiotic *Saccharomyces cerevisiae* Actisaf Sc 47 Reduce the Environmental Impacts of Beef Cattle? A Study Based on Life Cycle Assessment
- Phileo_White paper LCA dairy.pdf
- Phileo_White paper LCA beef.pdf
- Brochure Safmannan for sustainable poultry production EN 202409.pdf

Additional sources:

- FAO, EUROSTAT EU27 2023
- Statista Research Department
- European Commission Climate change

*This sustainability-related case study was provided by **Phileo by Lesaffre**.*

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