



KEY-WORDS:
SUSTAINABILITY - GHG EMISSIONS -
MITIGATION STRATEGY

PROFILE

I am an expert in food science and technology.

Currently I'm first-year PhD executive student in Agrisystem.

AFFILIATION

Department of Animal Science,
Food and Nutrition (DIANA)
Università Cattolica del Sacro Cuore

LANGUAGES



Mother language



Level B2

HOW TO REACH ME

Email Address:
federica.luisi@unicatt.it

Reference Contact

Prof. R. Negrini

PROJECT TITLE

Evaluating environmental impact and different mitigation strategies in dairy species using big data and innovative statistical approaches

Steps of the research

- Use longitudinal data from Dairy Herd Improvement (DHI) and other data sources on dairy cows to estimate greenhouse gas emissions (GHG) at animal and farm level through IPCC/ISPRA equations.
- Develop a low-cost environmental impact monitoring system for dairy cattle farms in Italy.
- Design a potential model of advisory service to foster the adoption of mitigation strategies.
- Explore a new approaches based on nutritional Life Cycle Assessment (nLCA).

Main Results

Develop a simplified estimation and monitoring of the environmental impact of dairy herds enrolled in DHI, build a model for on-farm mitigation advisory service.

Research Contribution

The nLCA approach will allow for a better definition of the functional unit to be adopted in estimating the environmental impact of cow's milk production.

Collaborations

Italian Breeders Association (AIA)

Why should you care?

Monitoring the environmental impact of dairy farms will enable the development of a large-scale mitigation action plan, support dairy farmers path to reduce greenhouse gas emissions and improve production efficiency.