



First name/Surname: Rashid Iqbal  
Telephone: +923217936355  
E-mail: rashid.iqbal@studenti.unipd.it  
Nationality: Pakistani  
Date of birth: 15/03/1992  
Place of birth: Gojra, Pakistan

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#### Education:

- PhD student in Animal and Food Science (2023- )
- MPhil in Food Safety and Quality Management (2015-2017)
- Bachelors in Biotechnology (2011-2015)

#### Research areas:

- Evaluation and modelling of methane emissions in ruminants
- Food Science and Technology
- Nano emulsification
- Food Biotechnology
- Fermentation

#### Brief description of Ph.D project:

The agriculture sector is a major contributor to global methane emissions, accounting for around 40% of all human-caused methane emissions. Within this sector, ruminant livestock production is responsible for a significant portion of these emissions, accounting for around 80% of all agricultural methane emissions

One significant source of methane emissions is from the digestive system of ruminant animals, such as cows, sheep, and goats. These animals have a unique digestive system that involves the fermentation of food in the rumen, resulting in the production and release of methane gas. This project aims development and testing of innovative technologies and laboratory procedures for the evaluation and modelling of methane emissions in ruminants will be studied. The laboratory for in vitro incubation and rumen fermentation of the Campus will be expanded and consolidated. An in vivo experiment will also be conducted in order to evaluate the effects of including natural plant extracts in the diets of lactating cows on the reduction of methane emissions. Finally, specialized companies will be involved in the development of models and/or sub-models, based on specific algorithms and included in feed formulation software, capable of predicting the methane production and defining mitigation strategies to obtain & “low impact” products.

Supervisor:

Professor Lucia Bailoni

Publications: Google scholar link

<https://scholar.google.com/citations?hl=en&authuser=1&user=44EzmPgAAAAJ>