UNIVERSITÀ
DEGLI STUDI
DI PADOVA

Curriculum Vitae

Family Name: Amin

Given Name: Nida

Nationality: Pakistani

Date of birth: 19/03/1992

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Education:

- PhD in Animal and Food Science, Università di Padova (2017-continued)
- M.Sc. Master's in Microbiology and Biochemistry, Georg-August-Universität, Göttingen, Germany (2014-2016)
- BSc. (Hons) Zoology (4-year program), University of the Punjab, Lahore, Pakistan (2010-2014)

Research areas:

- Animal feeding and nutrition

- Ruminal microbiome
- Strategies to reduce methane emission

PhD project:

Topic 1: In vitro assessment of the ruminal stability of free and rumen-protected essential oils products and their effects on rumen fermentation parameters

The ban on antibiotics usage in animal feed in 2006, increased the demand of finding antibiotics alternatives. Essential oils (EOs) possess vast variety of antimicrobial properties and can serve as a potential alternative to the antibiotics, but their volatile nature causes hindrance in their storage and usage in animal feed. In this project by collaborating with different companies, we are aiming to test the ruminal stability of free and rumen-protected (microencapsulated) forms of different essential oil products using in vitro incubation systems. The selected EO products will further be tested to see their effects on rumen fermentation parameters.

Topic 2: RNA based amplicon sequencing: an emerging approach to study diet related shifts in rumen microbiota

Description: Strategies to reduce ruminal CH4 emissions are becoming the main topic of interest for today's society. Taking this fact into consideration, the aim of the PhD project is to analyze the diet related changes in the metabolically active ruminal microbiome of Italian Simmental cows, based on 16S and 18S rRNA amplicon sequencing. In depth analysis of the ruminal microbiome during different dietary treatments will increase our knowledge about the existence of possible microbial genera involved in methanogenesis. This information can be used in future to define the nutritional strategies to reduce the ruminal losses (i.e. methane emission).

Supervisor:

Prof.ssa Lucia Bailoni

Publications:

https://scholar.google.it/citations?user=F-TSH24AAAAJ&hl=it&oi=sra