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Nationality: Italian
Date of birth: 16/01/1996
Place of birth: Triggiano (BA), Italy

Education:

- PhD student in Animal and Food Science (2024-)
- Research fellowship: "*Prelievo e campionamento di semi di canapa per la caratterizzazione chimica di curve di calibrazione NIRs*" (2 months 2024)
- Master's degree in Food Science and Technology (2021-2024)
- Bachelor's degree in Food Science and Technology (2018-2021)

Research areas:

- Animal Feeding and Nutrition
- Industrial hemp
- Use of by-products and waste
- *In vitro* methane production
- Livestock and environmental sustainability
- NIRs analysis

Brief description of Ph.D project:

The project aims to use alternative nutritional strategies to improve the sustainability of livestock farming, with a focus on ruminants. The main objective is to investigate the use of industrial hemp (*Cannabis sativa* L.) as an alternative to traditional feed (i.e. corn, soy, etc.). It further evaluates the potential of its seeds, derived cakes and by products, including waste seeds from the cleaning process, as a source of protein as well as a source of omega-3 fatty acids. Therefore, to investigate the potential of the industrial hemp to reduce enteric methane emissions through in vitro trial, thus contributing to mitigating the environmental impact of the livestock sector. Meanwhile, the positive effects of these alternative feed sources on the welfare and resilience of ruminants will be evaluated, by exploiting the protein, fiber and omega-3 fatty acid value of the by-products. In addition, the potential of hemp as a horse bedding will be assessed by evaluating its absorbency and antibacterial properties in vivo, opening up new possibilities for the valorization of the hemp supply chain in all its components. In addition, a central aspect of the project will be the application of advanced NIR (Near Infrared Reflectance Spectroscopy) spectral analysis techniques to develop predictive calibration curves for the chemical and nutritional characterization of industrial hemp products, including seed, oil and cake. This multidisciplinary approach aims to promote the use of sustainable sources in the agro-livestock sector, while valorizing waste and by products in a circular economy perspective.

Supervisor:

Prof. Lucia Bailoni

Co-supervisor:

Dr. Sarah Currò

Publications: Google scholar link

<https://www.researchgate.net/profile/Antonella-Latrofa-2>