Leoni Ferreira Martins

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ABOUT ME

As a PhD student in the Department of Animal Sciences at The Pennsylvania State University, my research focuses on sustainable dairy nutrition for efficient milk production. Specifically, I am investigating the impact of dietary fuels on rumen metabolism and exploring ways to optimize diet formulations to minimize nutrient waste while maintaining milk production and composition. Through my work, I am advancing our understanding of precision feeding strategies for dairy cows, aiming to make significant contributions to the dairy science.

PROFESSIONAL GOALS

My long-term aspirations revolve around becoming a professor of dairy nutrition and making substantial contributions to the advancement of dairy science. To achieve these goals, I am dedicated to enhancing education and research practices, fostering the growth of aspiring professionals in the field. Ultimately, I aspire to establish myself as a respected authority in dairy science, serving as a reference for others and making notable contributions to the progress of dairy production.

QUALIFICATIONS

- I have a strong background in dairy cattle nutrition and production (diet formulation, forage production, metabolic diseases, ruminal fermentation, pasture management, and calf rearing).
- I am skilled in data mining and statistical analyses.

EDUCATION

- 2021-Present: **PhD Student**, The Pennsylvania State University, PA, USA
 - ➤ Project: Precision feeding and nutritional strategies to mitigate enteric gas emissions. Partnership with Dr. Alexander N. Hristov.
- 2018-19: **M.Sc. in Veterinary Sciences**, Federal University of Uberlandia, School of Veterinary Medicine, Uberlandia, MG, Brazil
 - ➤ Thesis: Characterization of rearing and evaluation of the impacts of management on dairy calves' passive immunity transfer and health.
- 2012-17: **Bachelor's in Veterinary Medicine**, Federal University of Uberlandia, School of Veterinary Medicine, Uberlandia, MG, Brazil
 - ➤ Undergraduate thesis: Metabolic and productive parameters of periparturient dairy cows.

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Resume

RESEARCH AND WORK EXPERIENCE

- 2021-Present: **Graduate Research Assistant**, The Pennsylvania State University, College of Agriculture, Department of Animal Sciences, PA, USA
 - ➤ Projects: Effect of precision feeding frequency on dairy cow performance, N excretion, and enteric methane emission; Effects of an essential oil-based product on enteric methane emission, rumen fermentation, nutrient digestibility, and lactational performance of dairy cows; Effects of calcium carbonate on rumen fermentation, lactational performance, metabolism, and enteric gas emissions of dairy cows. Using meta-analysis for identification of effective methane mitigation strategies evaluated in vitro and in vivo.
- 2020-21: **Research assistant**, Purdue University, College of Veterinary Medicine, Veterinary Clinical Sciences Department, IN, USA
 - ➤ Projects: Investigation of feed additives to decrease the risk of hypocalcemia in postpartum dairy cows; Revisiting milk fever.
- 2018-19: **Research assistant**, Federal University of Uberlandia, School of Veterinary Medicine, Uberlandia, MG, Brazil
 - ➤ Projects: Survey of dairy calves' rearing practices in Brazil (Funded by Alta Genetics); Alternative strategies to feed dairy cows: carbohydrates sources and conservation methods (Funded by Cargill), Effects of corn silage hybrid on intake and performance of dairy cows (Funded by Dow Agrosciences).
- 2015-18: Farm Consultant, Baixona Farm, Monte Alegre de Minas, MG, Brazil
 - Responsibilities: Forage production and management, diet formulation, economic and financial planning, training of staff, and implementation of SOP.