



Dairy Cow Protein Nutrition Doctoral Research Assistantship University of Wisconsin – Madison

Position:

Doctoral research assistantship position is available at the University of Wisconsin, Madison, USA for a highly motivated student seeking PhD training in Dairy Science beginning in Fall 2017. This assistantship includes an annual salary stipend, tuition and fees, and health insurance benefits. The successful applicant will conduct research on dairy cow protein nutrition and methods for improving and evaluating the efficiency of nitrogen utilization. In addition, the successful applicant will have an opportunity to assist with undergraduate education and to present research findings at regional and national meetings. The successful applicant will become part of a dynamic and supportive research and educational team that values scholarly, professional, and scientific exchange in a diverse, collaborative environment within the university and with collaborators at the U. S. Dairy Forage Research Center.

Summary of proposed work:

Excess crude protein (CP) in the diets of dairy cows is excreted in the urine as urinary urea nitrogen (UUN). This source of N reduces the environmental sustainability of dairy farms because it can contribute to atmospheric ammonia and nitrous oxide emission and to nitrate contamination of waters. Avoiding excess CP in the ration of dairy cows may contribute to the economic and environmental sustainability of the dairy industry if milk production is maintained. Our earlier research focused on dietary manipulations for maximal milk protein production and minimal UUN excretion, and the use of milk urea-N (MUN) as a nutritional and environmental management tool. Our proposed research consists of a series of studies: a meta-analysis of current literature is required to understand factors influencing MUN and to determine relevant relationships among these factors and nitrogen use efficiency; experimental methods to reliably determine UUN excretion require refinement; studies evaluating dairy cow performance, nitrogen utilization, and environmental emissions under different dietary conditions are required to understand the nutritional implications of the dietary changes and to guide recommendations. Results will be reported in peer-reviewed publications and extension articles.

Qualification:

Applicants must have earned a MS degree (or equivalent) in animal sciences, agronomy, biological systems engineering, or a relevant related field. The successful student will have a record of peer-reviewed publications, a strong background in animal production, a strong work ethic, and excellent written and oral communication skills. Experience with dairy cattle is preferred.

Apply:

Initial application material will include: (a) a cover letter highlighting background and a statement of purpose, (b) a current Curriculum Vitae. Email application to Wattiaux@wisc.edu. Review of applications will start March 1, 2017.

For further information contact Prof. Michel A. Wattiaux University of Wisconsin-Madison, Dept. of Dairy Sciences: Phone: +1 (608) 263-3493 or email Wattiaux@wisc.edu .