UNIVERSITY OF ALBERTA – GRADUATE STUDENT POSITIONS

Project Title: *Linking cow/calf performance to cow behavior (habitat and diet selection) and cattle genomics*

Degree Opportunities: PhD Preferred (×3). Applicants at the MSc level also considered.

Project Leads: Dr. Edward Bork, Professor and Mattheis Chair, Rangeland Ecology & Management, University of Alberta. Students will be housed in the Dept. of Ag., Food and Nutritional Sci., with co-supervision likely, including through the Faculty of Science. Key investigators include Drs. Cameron Carlyle (AFNS), Carolyn Fitzsimmons (U of A/AAFC), James Cahill (BioSciences), and Graham Plastow (AFNS/Livestock Gentec).

Timelines: Preferred start date of May 1, 2021, though positions will remain open until filled.

Project Description: We are seeking graduate students to work on a new multi-disciplinary project linking cattle behavior (habitat and diet selection) under open-range grazing conditions, with production performance (weight gain and methane emissions), through the combined application of beef cattle and forage plant genomics. Field work will take place at the Roy Berg Kinsella Research Ranch, situated 140 km SE of Edmonton, Alberta, Canada. At least 3 positions are available, and include the following:

- PhD evaluating seasonal cow/calf production (weight gain and methane emissions) while grazing open rangelands (Aspen Parkland environment).
- PhD evaluating the use of novel technologies (GPS units, pedometers and virtual fencing) to characterize and quantify animal behavior (habitat selection and activity) while grazing, as well as the forage genome using fecal DNA barcoding.
- PhD linking cattle genomics to animal behavior and production/environmental outcomes.

Position Requirements: All individuals applying should have:

- A strong academic background and interest in conducting advanced studies in rangeland ecology, cattle production, applied cattle behavior/behavioral ecology, or agricultural (beef cattle) genomics or ecological genomics (DNA barcoding). Students should have a min GPA > 3.3.
- Excellent communication skills, both verbal and written.
- An ability to work closely with others in a team environment, as well as develop and undertake innovative scientific approaches.
- Possess strong organizational skills, problem-solving ability, and willingness to work directly with cattle as necessary.
- Willingness to engage in problem solving, data analysis, and thesis development.
- Ability to work in the field for extended periods.
- A valid graduated (non-probationary) drivers' license and a clean driving record.

Annual Stipend: Typical Research Assistantships: $22,000 for MSc; $24,000 for PhD (Cdn)

How to Apply: Interested candidates should send a copy of transcripts, CV, and a statement of research experience and interests (1 page limit), with the names of three references, to: ***Dr. Edward Bork*** (Edward.bork@ualberta.ca), Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, Alberta, Canada.

Website: https://rri.ualberta.ca/about-us/our-facilities/roy-berg-kinsella-research-ranch/