



UNIVERSITY OF SASKATCHEWAN  
College of Agriculture  
and Bioresources  
DEPARTMENT OF ANIMAL AND POULTRY SCIENCE  
AGBIO.USASK.CA

## GRADUATE STUDENT POSITION AVAILABLE WATER QUALITY AND MANURE MANAGEMENT

**Position:** Full time research-based program leading to a Master of Science degree

**Start date:** May or September 2019

**Duration:** 2 years, fully funded with a student stipend

**Research area:** Animal manure application to agricultural fields for nutrient management can be a source of hormones. These sex steroid hormones can persist in animal waste for extended periods and make their way into surface water and groundwater by leaching or by runoff, thus affecting aquatic ecosystems. This project will use bioanalytical methods (*in vitro* cell culture) to investigate the hormonal activity in beef cattle manure and surface water from fields applied with manure, as well as how different manure application practices influence hormonal activity in surface water runoff. Student will be co-supervised by Dr. Natacha Hogan (Dept of Animal and Poultry Science, Toxicology Centre) and Dr. Markus Brinkmann (School of Environment and Sustainability, Toxicology Centre). This project is part of a larger program that examines the effects of different cattle manure application strategies on soils, crops, air and water quality and brings in researchers and expertise from across the College of Agriculture and Bioresources, Global Institute for Water Security, the Toxicology Centre and the Livestock and Forage Centre of Excellence of the University of Saskatchewan.

**Candidate skills:** Motivated individuals, with a strong work ethic and a passion for agriculture, animal production, environment and biotechnology are invited to apply. The ideal candidate must have a strong academic performance in a discipline related to animal science, toxicology, or agricultural biotechnology.

**Application:** Individuals wishing to apply or seeking more information, please contact **Dr. Natacha Hogan** ([natacha.hogan@usask.ca](mailto:natacha.hogan@usask.ca), <http://hoganlab.weebly.com>). Formal application will require a letter of intent, curriculum vitae, transcript of marks and two letters of recommendation. Position will remain open until filled.

