



The University of Vermont

**MS Graduate Research Assistantship starting Summer or Fall 2021:
Innovative Manure Management & Nutrient Recovery Technology**

Drs. Joshua Faulkner and Eric Roy at the University of Vermont have an open position for a qualified and motivated MS student to conduct research on innovative dairy manure management and nutrient recovery technologies. The start date will be Summer or Fall 2021. The student will have the option of pursuing their degree in Civil and Environmental Engineering, Plant and Soil Science, or Natural Resources.

Project Overview: There is a need for innovative and effective manure management tools that recover nutrients, particularly phosphorus, from manures, enabling their export from farms where nutrients are in excess. Such tools could both decrease nutrient loss to aquatic ecosystems and recover valuable resources for beneficial reuse in a more circular economy. This project will assess two innovative dairy manure management practices in Vermont. The first is a manure composting operation that results in a wholesale product. The second is a mobile treatment system that recovers phosphorus from manure and is suitable for a range of farm sizes.

Responsibilities: Duties will include collection of manure/compost/other product samples at agricultural field sites, operation and maintenance of monitoring instrumentation, data analyses, and preparation of peer-reviewed manuscripts highlighting findings. Lab work may also be required to assess nutrient availability in manure-derived products.

Minimum requirements:

- A bachelor's degree in agricultural and biological engineering, civil and environmental engineering, soil science, environmental science, or a closely related field
- Excellent written and oral communication skills
- The ability to participate in on-farm monitoring projects that require regular travel within Vermont
- Previous experience related to the above project

To apply: The assistantship includes tuition waiver, health insurance, and stipend. Interested students may apply by sending their resume and a cover letter stating their interest and any previous experience to both Dr. Joshua Faulkner (Joshua.faulkner@uvm.edu) and Dr. Eric Roy (Eric.Roy.1@uvm.edu).

More information:

Dr. Eric Roy's Nutrient Cycling & Ecological Design Lab: <https://nced.weebly.com/>

Dr. Joshua Faulkner's profile page: <https://www.uvm.edu/cals/pss/profiles/research-assistant-professor-joshua-faulkner>