



# ses

school of environmental sciences

The Research Seminar Presentation by

**Mitchell MacFarlane**

will be held on

**Tuesday April 3, 2018**

**At 3:00 pm**

**ALEXANDER HALL 265**

**Title:** Evaluation of Optical Sensors in Predicting Root Yield, Quality, and Nitrogen Application in Sugarbeets

### Abstract

Given the dependency on fertilizers to support crop nitrogen requirement, determining that requirement becomes important. Sugarbeet nitrogen fertility positively correlates to root yield but negatively to sugar. This makes nitrogen fertilizer management, and monitoring of nitrogen status of the crop necessary to maximize payment. Optical sensors have shown promise in measuring plant nitrogen status including sugarbeet. Two optical sensors will be utilized (GreenSeeker and SPAD meter) to measure sugarbeet nitrogen content in season and at harvest. Should readings at each harvest correlated to fertilizer applied and sugar concentration; both sensors could become possible predictive tools for sugarbeet production.

Everyone is welcome to attend

(This is a Research Proposal presentation by students in ENVS\*6900)