

KAYLA WHITEMAN KYTE

STUDENT, ENVIRONMENTAL SCIENCE

HANBY ENVIRONMENTAL

SOIL TILTH AND FERTILITY BEFORE, DURING, AND AFTER RECLAMATION AT THE A HORIZON OF A CHERNOZEM OF NORTHERN ALBERTA

Soil tilth and fertility involves a soil's parameters and capacity to allow for seed germination and to support plant growth over time. Much of the research completed in the field discusses many various different attempts at soil reclamation, or the attempt and ability to return a soil to its initial health, however the knowledge bank of cost effective soil reclamation in Alberta is minimal. In addition, there is always room for improvement in the field of soil reclamation, especially with the economic outputs of a province like Alberta. Diesel fuel is one of the most common spills that occur in the railway due to train derailments or simply engine storage. In the lab, soil pots will be contaminated using diesel fuel, and then soil mixing and aeration will be used to attempt to reclaim, or start to reclaim the soil, within an eight-week time period.

Over the eight-week data collection period, growth was observed in both the control and the test pots, unlike the preliminary results. Data collection is set to be complete on April 4th 2019, and then results will be analyzed and prepared for presentation.

Research Advisors: Dr. Chen, Dr. Nyade