



Field Day: Digging Deep for Soil Knowledge

Lindquist Ranch, Rock Creek, October 5, 2020

Summary

At this field day we looked at two deep soil pits with soil scientist Wayne Blashill. We learned that some soils in the Rock Creek area are called "Chernozem" which is a grassland soil with 10 cm depth or more organic matter. We discussed how properties of grassland soils are different than forest soils and common characteristics such as a carbonate layers.

Field History – Dryland Farming, Rock Creek

Wilf Lindquist and his wife have recently moved to the ranch which has been in the family since 1948. The previous generation dryland farmed and did not apply fertilizer or weed control for decades. Wilf is interested to establish a regular fertilizer program to maximize production of hay fields and re-establish alfalfa. Wilf recently applied herbicide to the fields to control weeds so he is limited to what species he can plant for the next 7 years.

Soil Description & Methods

Soils in Canada are classified according to their formation and characteristic. These traits have inherent influence on the agricultural capability of soils. **Chernozem** soils are generally considered good for agriculture because they are high in organic matter. Producers want to minimize erosion and soil disturbance to conserve the organic matter. Forrest soils are also common in the region, such as **Brunisols**, which are more acidic, have less organic matter and coarser textured.

The soil's chemical properties are low in micronutrients Boron and Sulfur. Macronutrients Potassium and Phosphorus are slightly deficient.

Soil types will impact agricultural productivity and producers can learn about what types of soil they have from the BC Soil Information Finder Tool (online) and characteristics of different soil types from UBC's Soil Classification website: classification.soilweb.ca.



Soil scientist Wayne Blashill leads participants through an exercise to classify soil type.



Dark soils called Chernozem are high in organic matter, are natural grassland soils and productive for agriculture.

