

Impact of soil drainage and water table level on soil greenhouse gas emissions from blueberry farms in Delta, B.C

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Livestreamed via zoom (see details below for how to join)

Abstract: Managing soil drainage is crucial for agricultural production in regions with humid climate and poorly drained soils. Soil water content is an important driver of soil greenhouse gas (GHG) emissions; however, the impact of artificial drainage practices on emissions has not been extensively studied in perennial agroecosystems. An observational study was conducted in nine fields planted with highbush blueberries (*Vaccinium corymbosum* L.) on silt loam Gleysols in Delta, British Columbia. The following three drainage systems were investigated: (i) undrained, (ii) drained with subsurface tiles, and (iii) drained with tiles and pumps (pumped). Water table level and greenhouse gas (GHG) fluxes (CO_2 , N_2O , and CH_4) were measured every two weeks from June 2017 to June 2019 using the non-steady-state chamber technique. In this seminar I will discuss the effect of drainage system and water table level on soil GHG emissions, and evaluate the performance of tier 1, tier 2, and tier 3 methods for estimating GHG emissions from blueberry farms in BC.

Bio: Paula became interested in agriculture during her B.Sc. in Biology (2017) at the University of British Columbia (UBC). After graduation, she completed the Practicum in Sustainable Agriculture at the UBC Farm, where she first started thinking about soil – the mysterious yet central component to sustainable agricultural production. She went on to work as lab manager of the Sustainable Agricultural Landscapes lab at UBC, and is now completing a M.Sc. in Soil Science, under the supervision of Dr. Sean Smukler.



How to Join

Livestreaming via zoom is available for this presentation; pre-registration required.

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