

Dalhousie University and Canadian Water Network – Canadian Municipal Water Consortium

Symposium on the 'Impacts of alkaline stabilized biosolids application on fate and transport of emerging substances of concern in agricultural soils, plant biomass and drainage water'

June 11 and 12, 2015, Faculty of Agriculture Campus, Truro, Nova Scotia

Location: Cox Institute, Room 024, 39 Pictou Road, Truro, Nova Scotia

Contact: Gordon Price, gprice@dal.ca

AGENDA

| Thursday June 11, 2015 | |
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| 8:30-9:00 | Registration and Light Refreshments |
| 9:00-9:10 | Welcome: Dr. David Gray, Dean Faculty of Agriculture |
| 9:10-9:20 | Background to the CWN Project: Gordon Price (Dalhousie University) |
| 9:25-9:45 | Samantha Halloran (Trent University): Bioavailability and plant uptake of nitrogen and phosphorus and emerging substances of concern in soil amended with alkaline-stabilized biosolids |
| 9:50-10:10 | Kambiz Khosravi (Dalhousie University): Detection and analysis of seven commonly occurring phthalates from soils, plant tissue, and water samples in sites receiving alkaline stabilized biosolids |
| 10:15-10:35 | Carolina Klabunde (University of Guelph): Impacts of alkaline stabilized biosolids application on emerging substances of concern (ESOC) in groundwater |
| 10:35-10:50 | Break |
| 10:50-11:10 | Justin Rogers (Acadia University): Long-term impacts of applying alkaline stabilized biosolids to agricultural soils on trace metal seasonal dynamics and accumulation |
| 11:15-11:35 | Huryyah Alamer (Acadia University): Analytical method development for analysis of Emerging Substances of Concern in multiple environmental matrices |
| 11:40-12:00 | Yu Zhang (Dalhousie University): The effect of soil texture on sorption and desorption kinetics on mixtures of Non Steroidal Anti-Inflammatory Drugs |
| 12:05 - 1:20 | Lunch provided and Moderated Discussion 'Linking research on land applied biosolids and ESOCs to end-user priorities' |
| 1:25-1:45 | Eman ElSayed (McGill University): The role of biochar as a soil amendment in reducing soil and water pollution by estrogens from sludge and alkaline stabilized biosolids |
| 1:50-2:10 | Meggie Letman (Dalhousie University): Modeling fate and transport of Emerging Substances of Concern using the Root Zone Water Quality Model in soils receiving land applied alkaline stabilized biosolids |
| 2:15-2:35 | Daniel Gillis (McGill University and Dalhousie University): Development of a GC-MS metabolomics technique to assess earthworm (<i>Eisenia fetida</i>) responses to induced chemical stressors using emerging substances of concern |

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| 2:40-3:00 | Break |
| 3:00-3:20 | Aaron Mills (Agriculture and Agri-Food Canada): <i>Evaluating population dynamics of nematodes and microbial functional shifts (PLFA) as end-point indicators in a longterm field based study of land applied alkaline stabilized biosolids</i> |
| 3:25-3:45 | Mehdi Sharifi (Trent University): <i>Phthalates and pharmaceuticals concentration in soil, plant and water as affected by alkaline stabilized biosolids application</i> |
| 3:50-4:10 | Gordon Price (Dalhousie University): <i>Presence of Emerging Substances of Concern in a long-term study of soil receiving annual additions of alkaline stabilized biosolids</i> |
| 4:15-4:45 | Wrap-up and Discussion on priorities for future work |
| 6:00 | Dinner at Ella's Jamaican Restaurant (569 Prince Street, Truro, NS) |
| Friday June 12, 2015 | |
| 9:00-11:00 | Research Site Field Tour |
| 11:00-12:30 | Research Team Project meeting |