

Northern Agriculture and Climate Change Forum

University of Northern British Columbia

Friday, October 26th 2018

Gathering agriculture researchers and innovators to develop collaborative applied-research initiatives to help northern farmers adapt to a changing climate.

10:00 a.m.

Welcome

10:10 a.m.

Opportunity Projects Program

*Michelle Connolly, Program Manager
Pacific Institute for Climate Solutions*

10:30 a.m.

Regional Adaptation Strategy: Bulkley-Nechako and Fraser Fort George

*Samantha Charlton, Project Manager
BC Agriculture and Food Climate Action Initiative*

The ability of agricultural producers to adapt to climate change is often linked to physical resources and decision-making processes that are beyond the individual farm. Some of the most significant issues affecting future food production in BC are regional in scope. The BC Agriculture and Food Climate Action Initiative began working with BN & FFG in September on a Regional Adaptation Strategy. The planning process for developing this strategy brings local governments and agricultural producers together to identify concrete actions for addressing climate change impacts. Building collaboration is essential to address agricultural adaptation issues. The Regional Adaptation planning process and final strategy reflect the specifics of local climate change impacts, as well as the unique local adaptive capacity and opportunities.

11:00 a.m.

Farm Adaptation Innovator Program

*Shauna MacKinnon, FAIP Coordinator
BC Agriculture and Food Climate Action Initiative*

The Farm Adaptation Innovator Program (FAIP) funds farm-level research on practices, approaches and technologies that help BC agriculture producers adapt to and mitigate impacts related to climate change. Fifteen research projects were funded from 2014-2018. Expressions of Interest for new projects are now being accepted for projects from 2018–2023. Find out more about previous research as well as eligibility criteria and evaluation priorities for new projects.



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**BC Agricultural Climate Adaptation
Research Network**

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11:20 a.m.

Expanding cherry production in British Columbia under climate change: a role for organic amendments and post-harvest deficit irrigation?

*Dr. Louise Nelson, Professor
University of BC, Okanagan Campus*

With climate change cherry production in the southern interior of British Columbia is expanding northward and to higher elevations than previously possible. Efficient use of limited water and maintenance of soil health while sustaining cherry quality and yield are important factors to consider in adaptation of cherry to these new sites. The effects of post-harvest deficit irrigation (PDI) (25% reduction in water supply after harvest) and compost and mulch amendments on soil health and cherry production were assessed over three years in two new and one established orchard. This was coupled with a cost/benefit analysis of these management practices. PDI had no negative effects on cherry water relations, fruit quality, yield or soil health after two years, but the incentive to adopt this practice is limited at present as current water allocations are sufficient to meet grower needs. Compost amendment increased soil nutrients at all three sites and generally decreased the abundance of the root-lesion nematode, *Pratylenchus penetrans*, and the percent colonization of arbuscular mycorrhizal fungi in plant roots. Organic amendments show potential to maintain soil health in newly planted orchards and to mitigate the biological effects of replant stress in established orchards, but costs may outweigh the benefits to be gained in the short term.

11:40 a.m.

Investigating the Impact of Climate Change on the Cattle Industry

*Dr. John Church, Professor
Thompson Rivers University*

Dr. Church's presentation will focus on new concerns with respect to climate change; and the increasing summer heat that has recently been predicted for the future in Western Canada. The presentation will highlight research going on at Thompson Rivers University to address the problem, investigating both novel provincial cattle breeding strategies and innovative nutritional solutions from Vancouver Island using seaweed to address the problem.



12:00 p.m.	Lunch
1:00 p.m.	<p>UNBC Agriculture Network Pilot Project <i>Serena Black, Agriculture Extension Specialist</i> <i>University of Northern BC</i></p> <p>The Agriculture Network Pilot Project aims to initiate long-term research and extension activities conducted through UNBC, to get students hands-on experience with agriculture research, and to support Northern BC producers continue to develop competitive and resilient operations. Serena will provide an overview of what has been accomplished in Year 1 and discuss opportunities moving forward in Year 2.</p>
1:30 p.m.	<p>Developing a Regional Hub for Applied Research and Extension <i>David Zirnhelt, Chair</i> <i>Cariboo Agricultural Research Alliance</i></p> <p>The Cariboo Agriculture Research Alliance (CARA) started in 2013, when regional producers identified local research and communication of results as a priority in the Cariboo Adaptation Strategy. The goal of CARA is to become the steward of Cariboo applied agriculture research, providing access to research outputs, helping to set regional priorities, and providing coordination for programs and projects which are important, on behalf of ranchers, farmers and other agriculture user groups. David's presentation will provide an overview of the initiative, what is has accomplished so far, and what's happening next.</p>
2:00 p.m.	<p>A Provincial Approach for Climate Change Adaptation Research <i>Dr. Sean Smukler, Chair; Jason Lussier, Network Coordinator</i> <i>BC Agricultural Climate Adaptation Research Network</i></p> <p>The British Columbia (BC) Agricultural Climate Adaptation Research Network (ACARN) was launched in May of 2017 to improve linkages and collaboration among agricultural researchers, industry specialists, policy-makers, students and producers from across the province. The aim of this collaboration is to develop an effective network approach to address climate adaptation research needs in the BC agriculture industry by enhancing provincial research, promoting interdisciplinary projects, and improving the efficient use of climate adaptation resources.</p>



3:00 p.m.	Coffee Break
3:30 p.m.	<p>NRESi Colloquium</p> <p>The Natural Resources & Environmental Studies Institute (NRESi) at UNBC hosts a weekly lecture series at the Prince George campus. Anyone from the university or wider community with interest in the topic area is welcome to attend. This week’s lecture will be presented by Dr. Erik Krogh (Vancouver Island University), exploring technological advances in scientific instrumentation that have resulted in the development of an increasing number of ‘lab-based’ chemical measurements being mobilized into the field, providing spatially and temporally resolved information for determinants of environmental and human health.</p>
5:00 p.m.	Reception – Northern Lights Winery

The Northern Agriculture and Climate Change Forum is co-hosted by the Pacific Institute for Climate Solutions, the BC Agricultural Climate Adaptation Research Network, and the University of Northern BC.



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