



## **Biomass to Fuel the Bioeconomy Workshop**

Biomass Canada Cluster, BioFuelNet Canada  
In collaboration with the Wood Pellet Association of Canada

**Monday September 23, 2019**

**Lady Elgin Room, Lord Elgin Hotel, Ottawa**

### **Overall Objectives of Workshop**

To examine the results of the Biomass Cluster research efforts to date, with a view to understanding how the results, and Biomass Cluster collective effort, are serving to develop production of biomass and access to waste or other sources of available biomass, to provide a key underpinning to the developing sustainable Canadian bioeconomy.

7:30 – 8:30	<b>Registration and breakfast</b>
8:30 – 8:45	<b>Welcome to the joint meeting of the Wood Pellet Association of Canada and Biomass Canada</b> Gordon Murray, Executive Director Wood Pellet Association of Canada
8:45 – 9:00	<b>Introduction to Biomass Canada Cluster</b> Don Smith (CEO), BioFuelNet Canada
<b>Session #1: Energy crops as biomass for the bioeconomy</b> Chair: Ajay Dalai	
9:00 – 9:20	<b>Develop a Low-Cost and High Production System for Sorghum Biomass on Marginal Lands in Canada</b> Kevin Vessey, St-Mary's University
9:20 – 9:40	<b>Development of Biologicals as Low Input, Sustainable Production Inputs for Fuel and Residue/Food Production</b> Don Smith, McGill University
9:40 – 10:00	<b>Purpose-Grown Biomass Crops: Efficient Production, Yield Modelling and Real-world Verification</b> Kevin Vessey, St Mary's University
10:00 – 10:15	<b>Health Break and Refreshments</b>
<b>Session #2: Waste as biomass for the bioeconomy</b> Chair: Dr. Don Smith	
10:15 – 10:35	<b>Zero-Waste Process for Conversion of Wet Greenhouse Wastes and Agro-Forestry Residues into Recycled Water/Bioenergy/High-value Bioproducts</b> Charles Xu, Western University
10:35 – 10:55	<b>From Waste to Wealth: An Integrated, Tunable, and Closed Loop Approach for Agri-food wastes Valorization</b> Animesh Dutta, University of Guelph



10:55 – 11:15	<p><b>Application of Thermo-chemical and Hydro-thermal Pre-treatments in Production of Fuel Pellets Using Agricultural Wastes</b></p> <p>Ajay Dalai, University of Saskatchewan</p>
<p><b>Session #3: Biomass to fuel the bioeconomy</b></p> <p>Chair: Kevin Vessey</p>	
11:15 – 11:35	<p><b>Biomass Feedstock for Food and Energy Security in the North: Solutions to Technical Issues, Economic Feasibility and Environmental Sustainability</b></p> <p>Edmund Mupondwa, AAFC</p>
11:35 – 11:55	<p><b>Implementation of a Regional Biomass Depot for the Handling, Conditioning and Pre-treatment of Agricultural Crop Residues for Further Biorefining: Centre-du-Québec Region Case</b></p> <p>Simon Barnabé, Université du Québec à Trois-Rivières</p>
11:55 – 13:00	<b>Networking Lunch</b>
13:00 – 13:20	<p><b>Development of logistics, pretreatment and commercialization of agri-pellets</b></p> <p>Shahabaddine Sokhansanj/ Mahmood Ebadian, University of British Columbia</p>
13:20 – 13:40	<p><b>Biochar Production from Canadian Lignocellulosic Biomass and Application for Carbon Sequestration, Soil Improvement and Crop Productivity</b></p> <p>Ajay Dalai, University of Saskatchewan</p>
13:40 – 14:00	<p><b>Development of national and international standards for biomass handling</b></p> <p>Fahimeh Yazdan Panah, Wood Pellet Association of Canada</p>
14:00 – 14:15	<b>Health Break and Refreshments</b>
14:15 – 15:40	<p><b>Biomass Cluster students/researchers presentations</b></p> <p>Chair: Shahabaddine Sokhansanj</p>
15:40 – 16:00	<p><b>Biomass Cluster: Overview of Science Coordination &amp; Knowledge Translation</b></p> <p>Xiaomin Zhou, BioFuelNet Canada</p>
16:00 – 16:50	<p><b>Open discussion</b></p> <p>Peter Voldeng, Nulife GreenTech Ltd.</p>
16:50 – 17:00	<p><b>Close remarks</b></p> <p>Ranjana Sharma, Director of the Biomass Cluster, AAFC</p>
18:00 – 20:00	<p><b>Pellet Party: Celebrating 152 Years of Sustainable Energy in Canada</b></p> <p>Mill Street Brewery with live entertainment by Cassie and Maggie.          “Nova Scotian sisters Cassie &amp; Maggie are among the top musical acts in demand on the Irish/American/Canadian scene”</p>



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### Students/Researchers Presentation

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Time	Name	Title	Status
14:15	Cuong Dao	Microbial Delignification of Lignocellulosic Biomass for the Production of Solid Biofuel Pellets and Bioethanol	Ph.D.
14:20	Agu Obiora	Microwave Torrefaction of Biomass to Produce fuel Pellets	Ph.D.
14:25	Zhongshun Yuan	Synthesis of Superabsorbent Polymers (SAP) from Agricultural Bioresources for Absorbing Heavy Metals in Wastewater	Research Associate
14:30	Hongwei Li	Conversion of Wet Greenhouse Wastes and Agricultural Residues into Bio-based Hydroponic Foams	Ph.D.
14:35	Dennise Johanna Sosa	Lignin/Bio Based Formaldehyde Free Wood Adhesives and High Performance Composite Materials	M.Sc.
14:40	Rosa Arredondo	Bio-based super absorbent polymers for agricultural soil water retention application	M.Sc.
14:45	Gayathri Ilangumara	Bioprospecting of Bacteria from Indigenous Legume Nodules for Improving Salt Stress Tolerance in Soybean	Ph.D.
14:50	Mahammed Antar	Microbial Consortia: A Way to Enhance Biomass and Crop Yield Under Greenhouse and Field Condition	Ph.D.
14:55	William Overbeek	Microbial Inoculants to Boost Fertilizer Value and Biomass Production	M.Sc.
15:00	Ateeq Shah	Synthesis of Superabsorbent Polymers (SAP) from Agricultural Bioresources for Absorbing Heavy Metals in Wastewater	M.Sc.
15:05	Ziteng He	The Influence of Plant Growth Promoting Bacteria and Its Mechanism	M.Sc.
15:10	Shi (Michael) Qui	Application of Thermo-chemical and Hydro-thermal Pre-treatments in Production of Value-added Biochar Using Agricultural Wastes	Ph.D.
15:15	Pierre-Olivier Lemire	Circular Process Design, Engineering and Techno-Economic Assessment of An Advanced Regional Biomass Processing Depot	Ph. D
15:20	Hamid Rezaie	Development of Logistics, Pre-treatment and Commercialization of Agri-Pellet	Ph.D.