
OFA Research Day

Session Summaries – Thursday, May 6, 2021

9:40 a.m. – 10:30 a.m.

Thermochemical Conversion of Biomass and Waste to Bio-industrial Resources

[Dr. Franco Berruti \(ICFAR\) - Institute for Chemicals and Fuels from Alternative Resources \(Western University\)](#)

Dr. Franco Berruti, PhD, P. Eng., Professor of Chemical Engineering and Director of the Institute for Chemicals and Fuels from Alternative Resources (ICFAR), and researchers at the University of Western Ontario ICFAR Laboratory use scientific knowledge, skilled personnel, innovative and practical solutions to safely transform biomass, organic residues, co-products and wastes, into value-added products, that can be commercialized, for environmental and economic benefit.

Ontario farm plastic waste, farm residues, spoiled crops and other biomass are ideal feedstocks for these thermal conversions. In addition to producing renewable fuels, end products include bio chars that can help filter waste-water and effluents, soil additives to increase plant yields, and higher value pharmaceutical products, chemicals, and plastics.

OFA is a funding and advisory partner through NSERC (Natural Sciences and Engineering Research Council) of Canada.

10:45 a.m. – 11:30 a.m.

Farmer Mental Health and Wellness Initiatives

Peter Sykanda, OFA Policy Analyst & Janine Lunn, OFA Capacity Development Coordinator

OFA has been advocating for mental health supports for our sector for years. Although the pandemic has increased isolation and stressors, it has also increased awareness of mental wellness as a priority. Partnerships are connecting the dots which is allowing us to move from advocacy and awareness into action, specifically with the development of the In The Know farmer mental health awareness program.

Please join us as Janine Lunn, OFA Capacity Development Coordinator, and Peter Sykanda, Farm Policy Analyst, for details regarding OFA's ongoing initiatives to support farmer mental wellness.

11:30 a.m. – 12:15 p.m.

Phosphorus Reduction Collaborative

Charles Lalonde – CJ Agren Consulting

The Thames River Phosphorus Reduction Collaborative (PRC) initiative is a project aimed at installing and testing technologies that intercept and remove phosphorus from agricultural runoff. Phosphorus entering the system contributes to the growth of harmful algal blooms in the Thames River and Lake Erie. The Thames River PRC was cited in the *Canada Ontario Lake Erie Action Plan* which is aimed at contributing to the commitment made in 2016 between Canada and the U.S. to a 40 percent reduction in the total phosphorus entering Lake Erie.

The Thames River PRC is administered by OFA and the Great Lakes and St. Lawrence Cities Initiative and is funded through Environment and Climate Change Canada's Great Lakes Protection Initiative. The group represents agricultural organizations, municipalities, conservation authorities, First Nations, 4R Nutrient Stewardship, the drainage sector, and environmental non-governmental organizations. It is co-chaired by Mark Reusser, Vice-President, OFA and Clare Latimer, South Kent Councillor, Municipality of Chatham-Kent.

1:00 p.m. – 1:30 p.m.

Feeding Your Future: Connecting Ontario's Agri-Food Workforce

Danielle Collins, OFA Policy Analyst & Michelle deNijs, OFA Communications Specialist

In May 2020, OFA launched the Feeding Your Future initiative to address labour shortages intensified by COVID-19, ongoing training needs in the sector, and to attract a future workforce to the agri-food industry. Through virtual career fairs, webinars, online training and HR support, OFA and its collaborative partners will continue to deliver this Canadian Agricultural Partnership project until March 2022. To learn more, visit feedingyourfuture.ca.

1:30 p.m. – 2:15 p.m.

Biodegradable Bale Wraps for Ontario Agriculture

[Dr. Amar Mohanty - Bioproducts Discovery and Development Centre \(University of Guelph\)](#)

Dr. Amar K. Mohanty, PhD, is a Fellow of the Royal Society of Canada, the American Institute of Chemical Engineers, the Society of Plastic Engineers, and the Royal Society of Chemistry (UK). He is the Director of the Bioproducts Discovery & Development Centre (BDDC) as well as a Professor & the Ontario Agricultural College Distinguished Research Chair in Sustainable Biomaterials, at the University of Guelph. BDDC is conducting leading edge research that could have far reaching applications in materials development.

Current Areas of Research include: biocomposites, renewable green polymers, bio-based nylons, polyolefins, polyesters and epoxies, agricultural residue as reinforcing fillers, hybrid biocomposites of agricultural residues and industrial waste/co-products, and compostability and biodegradability of bioplastics and biocomposites.

OFA supports this research which is funded mainly through Ontario Agri-Food Innovation Alliance Research Program – University of Guelph Research Program 2019/202

2:15 p.m. – 3:00 p.m.

Understanding the Cost Burden of the Federal Carbon Tax on Ontario Agriculture

[Dr. Al Mussell - Agri-Food Economic Systems, Inc.](#)

OFA hired Al Mussell from *Agri-Food Economic Systems* in early March 2021 to conduct a financial assessment and analysis of the costs to Ontario's agriculture industry from the federal carbon tax. The *Understanding the Cost Burden of the Federal Carbon Tax on Ontario Agriculture* study provides detailed information on both the explicit and implicit costs borne by farmers attributable to carbon taxation. Join us as Al discusses the results from this study and the implications a rising price on greenhouse gases will have on agricultural production and competitiveness.

3:15 p.m. – 4:15 p.m.

Ontario Farmland Value and Rental Value Survey

[Dr. Brady Deaton - Food, Agriculture and Resource Economics \(University of Guelph\)](#)

For the past 5 years, OFA has been partnering with Professor Brady Deaton from the University of Guelph to collect farmland rental data in Ontario. Some of the key data points to come out of this project are the average cash rent per tillable acre of farmland, the average price per tillable acre of farmland and the rent/price ratio of farmland.

These rent/price ratios were calculated by taking the median reported cash rental value in each region and dividing it by the median reported price. These ratios approximate net-income divided by property value, which is often referred to as the capitalization rate – or "cap-rate". This measure does not account for a host of important factors (ex. taxes, land appreciation, etc.). Nonetheless, it is useful for comparing and assessing the returns to an asset like farmland.

The report presented by Professor Deaton provides an extensive overview of the market for farmland in Ontario.

4:00 p.m. – 4:30 p.m.

Resilient Fields

Charles Lalonde – CJ Agren Consulting

Following best management practices isn't as simple as it sounds. Resilient Fields is a new, free app to help Ontario crop farmers find sustainable solutions for field-based problems. Resilient Fields will help you weigh options ahead of your growing season and your entire crop rotation. Use the app with your crop advisor or on your own to balance trade-offs and find sustainable solutions that are backed by science and supported by articles and videos. You can also access other tools such as the 4Rs, cover crop choices, maps and many more. Learn more about this project at: <https://ofa.on.ca/resources/resilient-fields-bringing-science-and-farmers-together/>

