

June 7, 2021

Environment and Climate Change Canada  
Climate Action and Awareness Fund  
Fontaine Building, 12<sup>th</sup> Floor  
200 Sacré-Coeur Blvd  
Gatineau QC K1A 0H3  
Via Email [ec.enviroinfo.ec@canada.ca](mailto:ec.enviroinfo.ec@canada.ca)

To Whom It May Concern,

On behalf of The Ontario Federation of Agriculture (OFA), I am writing to express our support of the *Understanding the potential and implications of biochar/biocarbon-based negative emission technologies* proposal, being submitted by Western University under the Request for Proposals for the Climate Action Awareness Fund. The proposal is led by Dr. Franco Berruti, Ph.D., M.A.Sc. (Waterloo), Dott. Ing. (Torino), from Western University, and Dr. Charles Q. Jia, B.Eng., M.Eng. (Chongqing), Ph.D. (McMaster), P.Eng., from the University of Toronto.

OFA is the largest general farm organization in Ontario, proudly representing more than 38,000 farm family members across the province. OFA is the voice for our members and the agri-food industry on issues, and all levels of government legislation and regulations. We are passionate and dedicated to ensuring the agri-food sector and our rural communities are included, consulted and considered in any new and changing research that impacts the sustainability and growth of our farm businesses.

We are pleased to provide an agricultural and rural Ontario perspective on the proposal. Greenhouse, field crop and livestock production can act as sources of carbon through the natural degradation of farm residues and through organic loading of our waterways. While the carbon negative nature of bio-oils and biochars are evident, the proposed research will examine the viability of using bio-oils and biochars in biofuels, and energy storage, as functional materials, and as structural materials for carbon capture. OFA views this research as very important for the agri-food sector to better manage carbon sequestration and reduce organic runoff into our watersheds.

Biochar can act as a soil amendment, enhance fertilizers, filter water, and as an advanced functional material biochar can and sequester carbon with the permanency needed to significantly reduce the carbon footprint of agriculture. This project will create a sustainable pathway to not only prevent carbon emissions from farm sources but also generate value added products that can be used in carbon capture and sequestration.

OFA, along with commodity organizations representing greenhouse and field crop producers support current research conducted by Dr. Berruti at the Institute for Chemicals and Fuels from Alternative Resources (ICFAR) research institute within the Faculty of Engineering at Western University. As the NSERC Chair in Thermochemical Conversion of Biomass and Waste to Bioindustrial Resources, Dr. Berruti is researching several lab and field studies of interest to farmers, including beneficial synergies between biochar and compost in plant production, biochar use in carbon and other chemical sequestrations, the characteristics of biochars dependent on type of biomass feedstock under various pyrolysis processes, the production of renewable chemicals and absorbents, and evaluating industry-scaled thermal conversion of mixed plastic waste. In addition to agricultural participation, the Industry Advisory panel for the NSERC Industrial Research Chair includes expertise in renewable and sustainable technology business development, biochar production, municipal government and waste management, and industrial chemical production.

This project will provide valuable information for federal, provincial and municipal policy makers, and developers of pyrolysis processes needed to generate value added products, and will provide a practical assessment of real world carbon sink potentials. This is particularly important for rural and remote communities, where there abundant biomass residues but little policy direction and information on how best to manage these residues, leaving these communities out of the circular economy. Rural communities are challenged to design local solutions for waste management, and to develop environmental and climate change solutions. We are optimistic that this research will lead to improved economic and environmental opportunities for rural and farm communities throughout Canada.

We look forward to an opportunity to collaborate with Dr. Berruti in this research, and are confident that the proponents can meet the requirements outlined in the proposal. If the Letter Of Intent is accepted and a full proposal for this research is invited, OFA will discuss with Dr. Berruti opportunities to participate and support *Understanding the potential and implications of biochar/biocarbon-based negative emission technologies*.

Sincerely,



Peggy Brekvelde  
President

cc: OFA Board of Directors