Optimizing Land Use for Sustainable Growth: a CAPI Dialogue

April 24, 2019

OMAFRA Conference Centre, 1 Stone Road West, Guelph, Ontario

AGENDA

8:30-8:45 **Registration and coffee**

8:45-9:00 **Opening Remarks** – Don Buckingham, CAPI President and CEO

9:00-10:30 **Session I – Agricultural Systems, Land Use Practices and Water**

Speakers: David Rudolph, University of Waterloo Water Institute
Bruno Larue, Université Laval

Discussant: Joann Whalen, McGill University

Open Discussion

10:30-10:45 **Health Break**

10:45-12:00 **Session II – Animals and Soils**

Impacts of land allocation choices (crops- grazing-intensive livestock) and production practices on GHG emissions, water quality and biodiversity and implications on productivity; Industry initiatives and innovations for improved sustainability

Industry Panel

Crops	Keith Currie, OFA
Organics	Ralph Martin, University of Guelph
Horticulture	Brian Gilroy, Canada Horticulture Council
Dairy	Getu Hailu, University of Guelph
Pork	Andrea De Groot, Ontario Pork Industry Council
Biodiversity	Lori Phillips, AAFC

Open Discussion

12:00-13:30 **Lunch**

Speaker: Greg Meredith, OMAFRA

13:30-14:45 **SESSION III – Factors Affecting Land Use Choices and Agronomic Practices**

Speaker: Brady Deaton, University of Guelph

Industry Panel Responds

Open Discussion

14:45-15:00 **Health Break**

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15:00-16:30	**SESSION IV – Externalities and Policy Options** Externalities in the sector, where are the market failures. Speaker: Alfons Weersink, University of Guelph The role of innovation and policy instruments in addressing environmental externalities in agriculture. Speaker: Glenn Fox, University of Guelph Discussant: Kara Beckles, AAFC Open Discussion
16:30-17:10	**SESSION V – Next Gen Panel: What We Heard**
17:15-17:30	**Closing remarks** – John F. T. Scott, CAPI Chair

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Preamble:

One of the most significant global challenges of the 21st century is producing enough affordable and accessible food to meet the demands of an increasing population while maintaining and improving natural capital (land, water, air, biodiversity). This event will focus specifically on land use choices and agronomic practices and their impacts on soil, air and water quality and biodiversity.

CAPI held 3 conversations titled "Barton Forward: Optimizing Growth" in 2017-18. At the end of these conversations CAPI concluded that "…we will require more than "simple" growth to achieve the ambitious growth targets in the Barton Report. "Quality" growth is needed to ensure that the gains in the agri-food sector can be sustainable. Not caring for the natural capital could accelerate environmental degradation resulting in losses in productivity and erosion of public trust, which would impede Canada's longer-term prospects." The CAPI report, entitled "What We Heard – Barton Forward: Optimizing Growth in the Agri-Food Sector" can be found here.

In agricultural production, soil use and soil quality connect not only to farmers' choices among competing enterprises, such as crops vs livestock, and management options but also to biodiversity, to air and water quality and, through carbon sequestration, to climate change. Farmers do allocate their land to optimize economic returns. However, optimizing land use with a view to maintain and improve its productive capacity over the long term while supporting the national carbon strategy may require more than just responding to market signals.

A more recent analysis by OMAFRA has estimated that 82% of Ontario's agricultural soils are net carbon emitters, 68% of Ontario's farmland is in an unsustainable erosion risk category, and 53% of Ontario's cropland have low or very low soil cover. Nearly 20% of monitored water sites in Canada register marginal or poor water quality, due to nutrient pollution from agricultural and urban wastewater sources, persistent toxic substances and chemicals. Fertiliser use has increased more than twice as fast as agricultural production since 2000. This affects water quality in the Great Lakes, Lake Winnipeg and the St. Lawrence River basin among others. These issues are particularly worrisome for Central Canada: while the national average indicates that the risk of N related water contamination was high for only 7% of total farmland in Canada, this proportion goes up to 41% of farmland in Ontario and 75% of farmland in Quebec.

The key question is "how the land use allocations and soil management practices could be optimized in such a way to improve environmental and social outcomes while maintaining and improving the sector's long-term competitiveness and securing "quality" growth". To seek answers, CAPI and partners will convene a conference with the participation of transdisciplinary group of experts from industry, governments, academia and other research groups to commence a conversation on "Optimizing Land Use for Sustainable Growth".