<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:30 pm - 1:00 pm</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td>1:00 pm - 2:00 pm</td>
<td>How Big Data Has Changed Agriculture</td>
<td>Dr. Keith Coble, Giles Distinguished Professor and Head, Department of Agricultural Economics, Mississippi State University; Discussant: Dr. Ralph Martin, Professor, Department of Plant Agriculture, University of Guelph</td>
</tr>
<tr>
<td>2:00 pm - 2:15 pm</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>2:15 pm - 3:15 pm</td>
<td>Innovation and Climate Induced Yield Volatilities</td>
<td>Dr. Alan P. Ker, Professor and Director, Institute for the Advanced Study of Food and Agricultural Policy, University of Guelph; Discussant: Dr. Bill Deen, Associate Professor, Department of Plant Agriculture, University of Guelph</td>
</tr>
<tr>
<td>3:15 pm - 3:30 pm</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>3:30 pm - 4:00 pm</td>
<td>Big Data and Agricultural Business Risk Management Policy</td>
<td>David Hagarty, Policy Director, Farm Finance Branch, OMAFRA; Discussant: Phil Malcolmson, Assistant Deputy Minister, OMAFRA</td>
</tr>
<tr>
<td>4:00 pm - 4:30 pm</td>
<td>Climate Change and Agricultural Policy</td>
<td>Sharon Bailey, Policy Director, Food Safety &amp; Environmental Policy Branch, OMAFRA; Discussant: Phil Malcolmson, Assistant Deputy Minister, OMAFRA</td>
</tr>
</tbody>
</table>

Registration is free, but space is limited.
To register, contact: dharkies@uoguelph.ca
How Big Data Has Changed Agriculture

Dr. Keith Coble
Giles Distinguished Professor and Head,
Department of Agricultural Economics,
Mississippi State University

Whether it is called ‘Big Ag Data’ or ‘Digital Agriculture’ or something else, we are seeing an explosion of new data technologies being used to enhance the management of agricultural production, maintain identification of products from farm to retail, and to investigate the demand for agricultural goods. Private sector investment in precision agriculture alone was estimated at $661 million in 2015 by AgFunder. For example, Dr. Rob Fraley, Executive Vice President and Chief Technology Officer of Monsanto, says his company is repositioning itself to be a business built on data science and services. Ultimately, this may be the next great technological revolution in agriculture. So what can we expect from these technologies? How can we engage in these new opportunities and avoid pitfalls. In this presentation, several issues will be addressed:

• How do we use, but not abuse, data mining and other new computational techniques for agriculture?
• How will farm management change?
• What are the appropriate roles of the public and private sector in this new research arena?
• What do these new technologies mean for government data collection, and policy makers?
• How might these technologies affect sustainability and environmental management?

Innovation and Climate Induced Yield Volatilities

Dr. Alan P. Ker
Professor and Director,
Institute for the Advanced Study of Food and Agricultural Policy, University of Guelph

Climate change has become a priority for federal and provincial governments in Canada. In 2015, the federal government committed $2.65 billion in climate finance over five years to support climate change action in developing countries. Moreover, they have recently introduced their pan-Canadian approach to pricing carbon pollution. At the provincial level, Ontario has announced a five-year Climate Change Action Plan ‘to fight climate change, reduce greenhouse gas pollution, and transition to a low-carbon economy.’ This presentation will address the effects of a changing climate and innovation on crop production and year-to-year crop yield volatility. Specifically, the following issues will be addressed:

• How has changing climate and innovation affected average yields in Ontario as compared to the U.S. corn belt?
• How has changing climate and innovation affected yield volatility in Ontario as compared to the U.S. corn belt?
• How has changing climate and innovation affected the probability of a poor yield in Ontario as compared to the U.S. corn belt?
• How will changing climate and innovation affect the premium rates for production insurance in Ontario?
• How will changing climate and innovation affect the actuarial soundness of BRM programming in Ontario?