

IN THE MIDST OF CHANGE
CHALLENGES AHEAD FOR THE CANADIAN AGRI-FOOD SECTOR
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À LA CROISÉE DES CHEMINS:
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ABSTRACT 13

**Reducing Uncertainty of Economic Benefits of Canadian Cattle
Traceability Systems on A Potential Foot-and-Mouth Disease (FMD)
Outbreak for the Purpose of Cost-Benefit Analysis**

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A national livestock traceability system is under consideration with the government's motivation to reduce the negative impacts of foreign animal diseases such as FMD and BSE. The problem facing the government is whether the benefits of implementing the enhanced traceability system can outweigh its costs and whether the industry stakeholders would be willing to participate. Therefore, an estimation of traceability benefits in terms of a disease outbreak is needed to inform the policy decision.

FMD is a highly contagious viral disease affecting cloven-hoofed animals, which would lead to immediate closure of export markets. Trade restrictions will not only cause substantial export losses in international market, but also result in price reductions and welfare losses in Canadian domestic market due to its limited capacity to absorb the excess supply diverted from export market. This paper will simulate an FMD outbreak in Alberta and investigate its economic impacts on Ontario's cattle and beef industry. The estimation can be particularly challenging because of two sources of uncertainties, the first of which is the actual duration of disease outbreaks while the second is the length of subsequent trade embargoes which could be regarded as a political decision not bounded by the OIE or WTO regulations. This research will try to address these two uncertainties and help to facilitate policy decisions regarding traceability system investment and other preparedness activities to combat foreign animal disease outbreaks.