

**Research Poster Abstract from the
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ABSTRACT SPAA-01

The Economics of Livestock Disease: The Impact of a Regionalization Policy

Michael A. St. Louis (MSc Candidate)

Jill E. Hobbs (Supervisor)

Department of Bioresource Policy, Business & Economics

University of Saskatchewan

An outbreak of Foot-and-Mouth (FMD) disease in Canada could result in significant economic costs totaling millions of dollars. The 2001 FMD outbreak in the UK resulted in losses estimated at £9 billion. The loss of access to export markets is of particular concern in Canada as the livestock industry relies heavily on export revenue. In the event of an FMD outbreak, export markets in Canada would be closed for three months after the last detected case of the disease was found and eliminated.

A Regionalization Policy would be a way to reduce the impact from the loss of export markets. Under a Regionalization Policy, disease-free zones would be established that are fully open to export markets. In order for this to be effective it would be critical to monitor animal movements by producers in non disease-free areas seeking access to export markets or to implement policies that deter animal movement between diseased and disease free regions. In regions with multiple access points monitoring could be prohibitively expensive. The region of West Hawk Lake in southern Manitoba has been suggested as a natural separation point between eastern and western Canada because there is only a single access point on the Trans-Canada Highway.

This project is examining the effect a Regionalization Policy will have on the economic costs of an FMD outbreak in eastern or western Canada. The project includes an epidemiological model that will simulate an FMD outbreak using Geographic Information Systems to examine regional (spatial) impacts, and an economic model that will calculate the direct and indirect costs in the presence of disease-free zones that are open to export markets. The study area includes Alberta, Saskatchewan, Manitoba and Ontario.

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