

# **Evolving Standards and Industries in an Era of Market Integration: Opportunities and Obstacles within the North American Livestock Complex**

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# Animal Health Management & Emergency Preparedness

- A retrospective on past outbreaks & their consequences
- Emerging Issues
- The need for risk prioritization for cross-country coordination & regulatory integration
- Leading role of OIE (World Animal Health Organization) in setting standards
- Recognition of third countries' regulation



# Requirements for Integration of Animal Health Management (BSE)

- Feed regulation
- Production, shipping, slaughter standards
- Animal Identification & Traceability
- Testing regime
- Emergency response
- Support (investments & compensation in crisis)
- Monitoring & enforcement

*Source: Sparling, D. & J.A. Caswell. 2005. Integrating NAFTA Animal Health Regulations: A Case Study Analysis. Paper presented at the International Conference on Sanitary & Phytosanitary (SPS) Risk Assessment Methodology. Washington DC, August 9-11, 2005.*



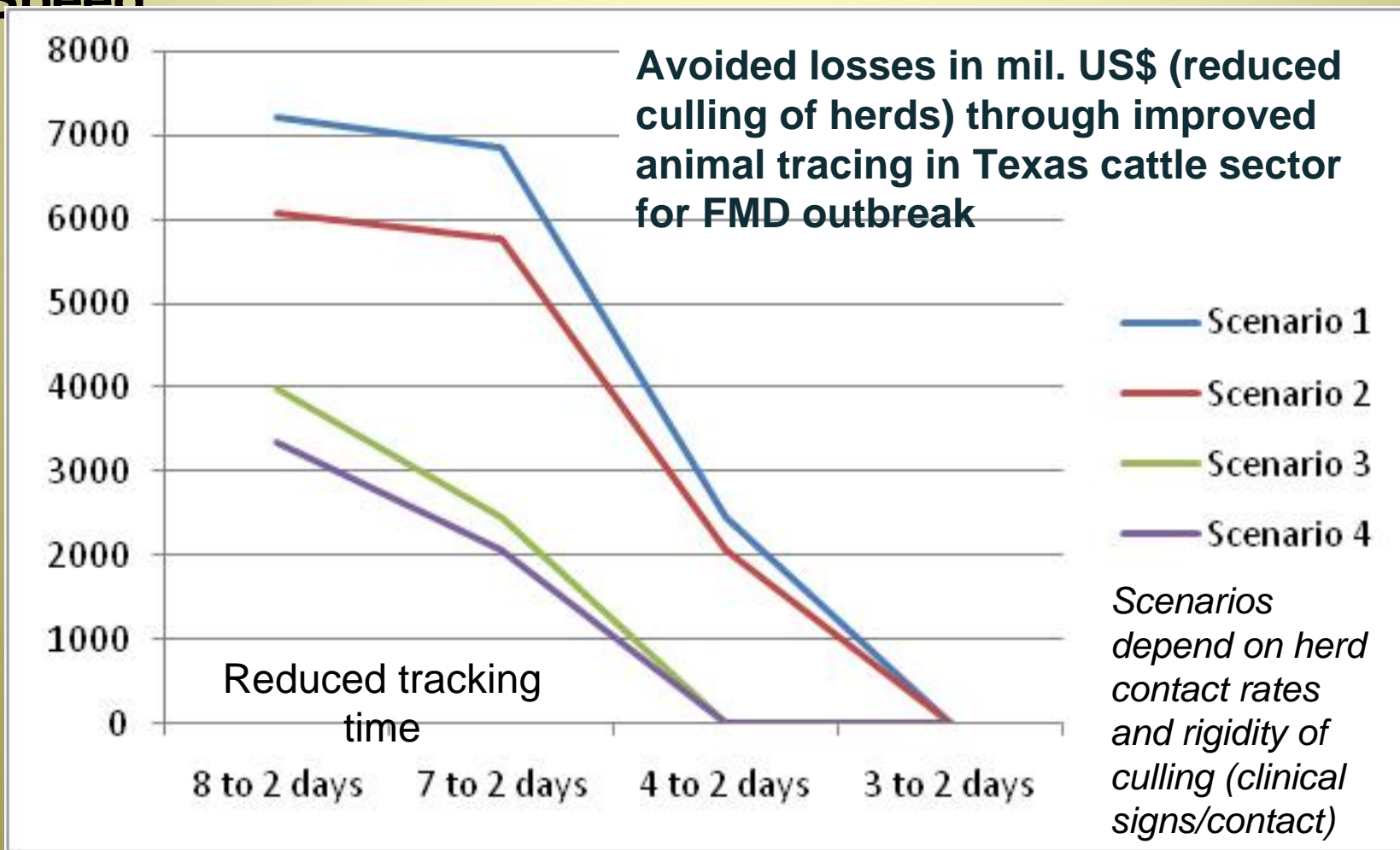
# Animal Identification & Traceability Systems (AITS):

## Defining Dimensions

- Traceability Systems in General
  - Breadth
  - Depth
  - Precision
  
- Traceability for Animal Health & Emergency Preparedness
  - Premises ID
  - Animal ID
  - Animal Movement Tracking



# Animal Identification & Traceability in Focus: The Value of Speed



Source: Data from Elbakidze, L. (2007): Economic Benefits of Animal Tracing in the Cattle Production Sector. *Journal of Agricultural & Resource Economics* 32(1): 169-180.

5<sup>th</sup> NAAMIC Workshop: - Skaggs, Boecker, Crawford: Evolving Standards in the Livestock Sector



# Role of International Organizations in Setting Standards

- GS1 (formerly EAN)
  - Global Location Standard (to integrate premises ID)
  - Unique Product Identification
  - CanTrace (identified minimum requirements)
- ISO
  - Compliance with ISO 22005:2007 as a signal to buyers
- Codex Alimentarius Commission (CAC) & OIE
  - OIE declared proponent of “...traceability from farm to fork”
  - raise awareness of existing standards
  - advise & assist in implementing standards



# Overview of AITS implementation

- Focus of efforts (still) clearly on national level
- Numerous existing programs /databases with traceability elements
- Industry/Government interactions
- Controversial Issues:
  - Clearly tangible costs vs. invisible benefits
  - Duplication of efforts
  - Definition of access rights to databases
  - Integrity of Databases
- Heterogeneity between sectors & between countries
  - Export orientation as main dividing factor





## Concluding remarks:

***No regulatory integration for animal identification & traceability within NAFTA but (avenues for) cross-country coordination efforts & utilization of standards are observed***

- Cross-border emergency exercises, e.g. Equinox 2005
- Use of Global Location Standard (GS1) to overcome incompatibility of existing premises ID standards that are specific to species, program, state, province or country
- Setting & transferring standards:
  - particular RFID tag type required by NAIS
  - Canadian Cattle Identification Agency standard
    - industry-led
    - used by service-provider to U.S. producers



# Regulatory Integration (RI) vs. Market Integration (MI)

- Is RI essential for market integration MI ?
- RI implies harmonization, equivalence, standardization
- Feasibility of increased RI & MI?
  - Animal ID & traceability obstacles & pushback
  - Significant increase in regulation of live animals
  - Compromised comparative advantage?
- Resistance to increased RI & MI ? **Why?**



# Socio-Cultural Position of Livestock Production

- Protectionist behavior has deep roots
  - Multiple roles of livestock in society
  - Identity, touchstone, tradition
  - Lightly regulated
  - Culture & lifestyle
  - Ancient? Instinctual?
- Attitudes toward government (U.S., Canada, Mexico)
  - Response to NAIS
- Structure impacts of regulation & mandates



# Ecology of the North American Livestock System

- Ecological principles
  - Resilience, sustainability, robustness
  - Applicable to firms, industries, supply chains,
- Systems best recover after shocks if
  - There is redundancy (broad portfolio)
  - They are diverse – not monocultural
- Regulatory integration, harmonization, standardization implies
  - Regulatory and/or process monoculture
  - Less resilience, less robust, more unstable



# Effects of High Impact Events?

- Serious disruptions
- Worse in brittle systems (monocultures?)
- Catastrophic “Black Swans”
  - Have low probability
  - Have extreme impacts
  - Outside the realm of regular expectations
  - Nothing in the past point to their possibility
- What “Black Swans” lie ahead for the North American livestock complex?



## Tradeoffs?

- Portfolio of functions, firms, processes, procedures, agents vs. concentration & standardization
- Redundancy vs. monoculture
- Resilience vs. short-run efficiency
- Long-run survival & stability vs. short run gains
- *Resilient systems are better positioned to survive & thrive after low probability, high impact events*



# Are We Fighting the Last War?

- Animal identification & traceability initiatives
  - Arose from known disease & food safety threats
  - Will future threats be the same?
- Will monocultural regulations, standards & processes deal with emerging, unimaginable threats?
- Will additional standardization, commodification, concentration, harmonization increase the possibility of livestock system collapse?



# What Degree of Integration, Standardization, Harmonization is Possible or Desirable?

- The system isn't perfectable...
  - (Pretty) Good Practices recommendations may have a future
- Noncommercial nature of much livestock production
  - Pushback may intensify
  - Socio-cultural concerns...
  - Instinctual resistance...
- Consumer sovereignty
  - The end of mass marketing?
  - Multiple market channels or segments ?
  - De-Commodification?





# What Degree of Integration, Standardization, Harmonization is Possible or Desirable?

- Many questions remain
- AITS are progressing, but not without problems & obstacles
- Feasibility transcends straightforward economic analysis of obvious costs & benefits
- Market integration is a work in progress & is likely to remain so



**Questions??**

**Comments??**

**Thank-you!**

