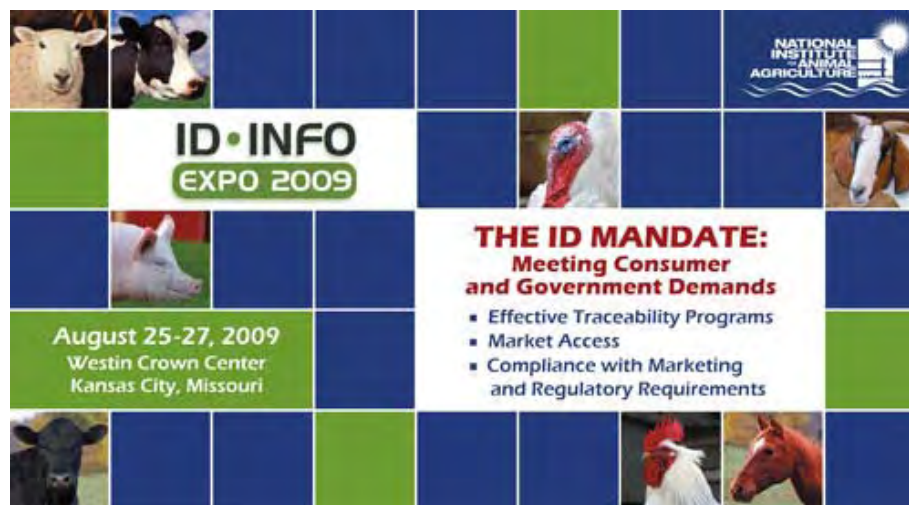


# The Value of Incentives in Furthering Animal Traceability in the U.S.

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**tcs@ksu.edu**



**NATIONAL INSTITUTE ANIMAL AGRICULTURE**

**ID • INFO**  
**EXPO 2009**

**THE ID MANDATE:**  
**Meeting Consumer and Government Demands**

- Effective Traceability Programs
- Market Access
- Compliance with Marketing and Regulatory Requirements

**August 25-27, 2009**  
Westin Crown Center  
Kansas City, Missouri

# Paradigm Shift

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*a fundamental change in approach  
driven by agents of change*



# What Creates Product Demand?

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or what will encourage someone to buy your product instead of a competitor's, even if your product has a higher price??

# **What Creates Product Demand?**

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**or what will encourage someone to buy your product instead of a competitor's, even if your product has a higher price??**

## **Perceived Value of Product:**

- 1. Intrinsic product attributes (freshness, quality, visual, tenderness, color, flavor, purge, convenience, etc.)**
- 2. Trust (certifications, inspections, traceability, reputation, labeling, past experience, advertising, public information, etc.)**

# Global Perceptions

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Interviews of CEOs and food directors “gatekeepers” in Europe (UK, Germany, Netherlands, Greece, Italy)

***“...in the eyes of the food channel members interviewed, New Zealand is in the fortunate position of being perceived as ‘less risky’ than many other countries, as a direct result of the efforts that have been made to institute the best quality control and traceability systems and technology available.”***

Knight, Holdsworth, and Mather, 2007  
*Journal of International Business Studies*

# **U.S. August Newswire:**

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- **8/20/2009**      ***Taiwan bans Creekstone beef plant***
- **8/20/2009**      ***Russia considering ban of 15 U.S. beef exporters***
- **8/19/2009**      ***Russia bans Iowa pork plant***
- **8/13/2009**      ***Mexican commission recommends halt on JBS-Swift ground beef***
- **8/7/2009**      ***Russia bans six U.S. poultry plants***
- **8/7/2009**      ***Columbia blocks imports of Minnesota poultry***
- **8/5/2009**      ***China bans U.S. pork, poultry plants***

Source: Meatingplace.com

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- 8/5/2009 *China bans U.S. pork, poultry plants*

**Does US have a “Trust”  
problem in the global meat  
market?**

Source: [meatingplace.com](http://meatingplace.com)

# ***Industry Benefits of Tracing Systems***

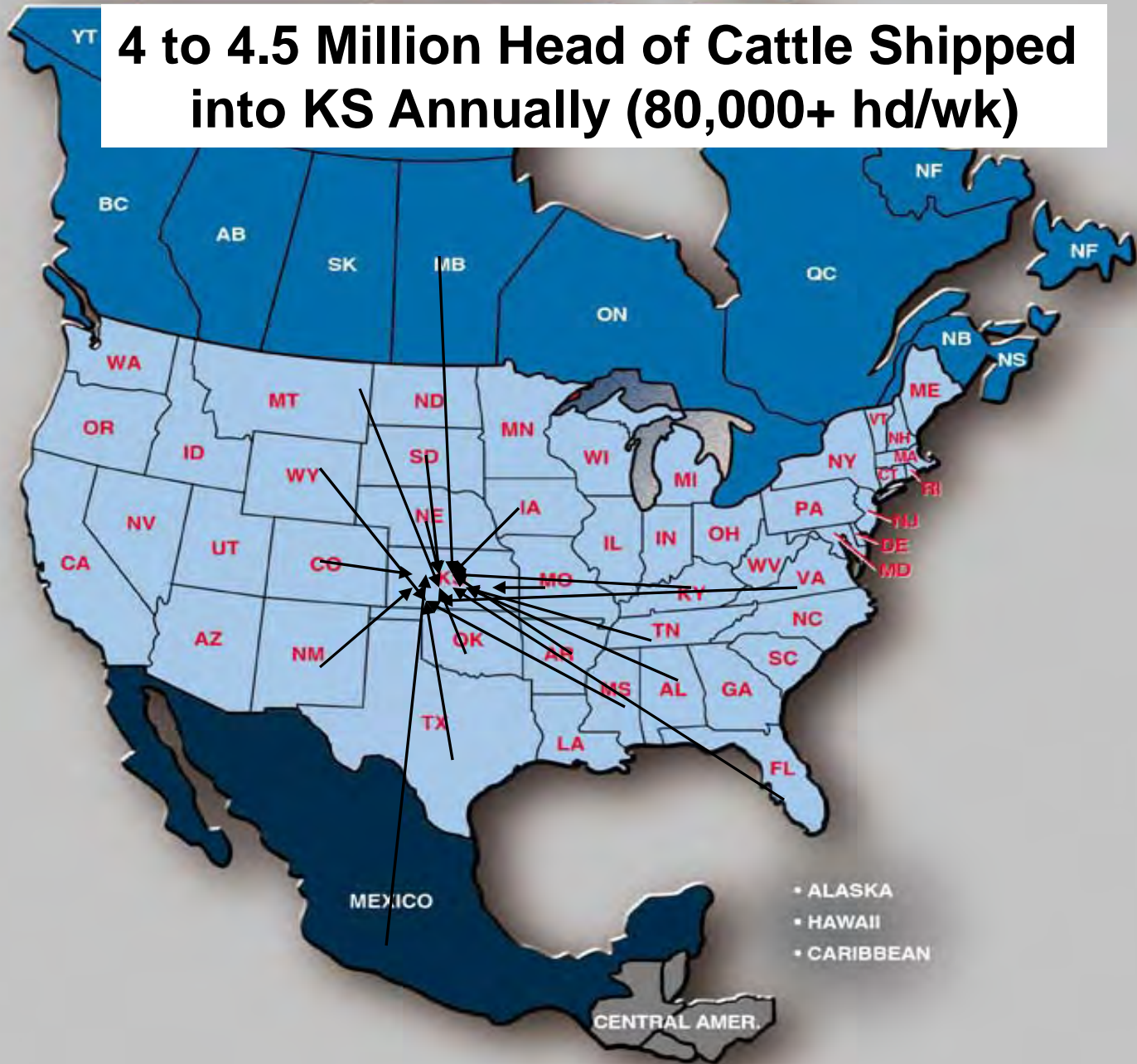
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**1. Market Access**

**2. Enhanced animal health management (NAIS)**

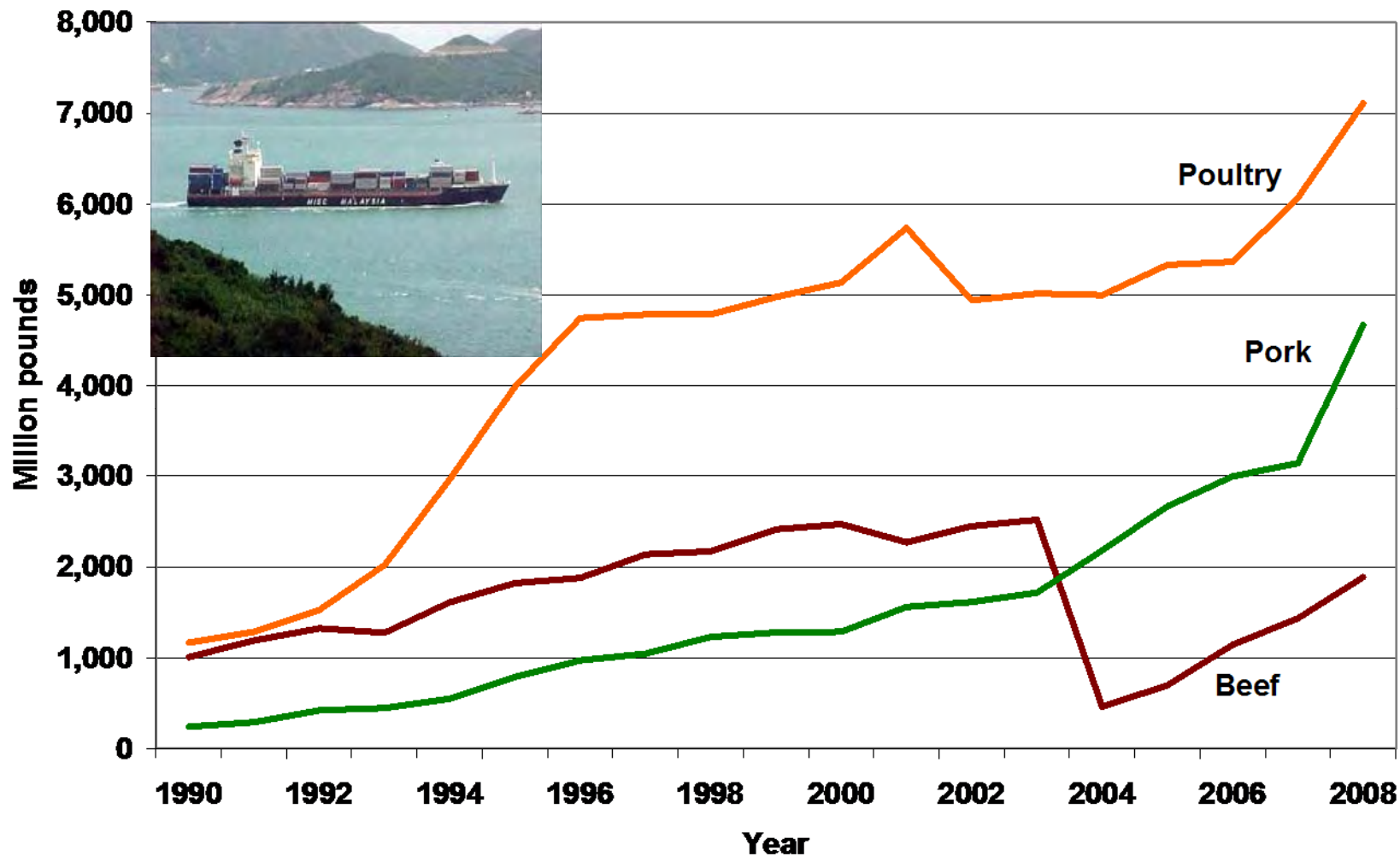


**4 to 4.5 Million Head of Cattle Shipped into KS Annually (80,000+ hd/wk)**



# Market Access

## Poultry, Pork, and Beef Exports, 1990-2008



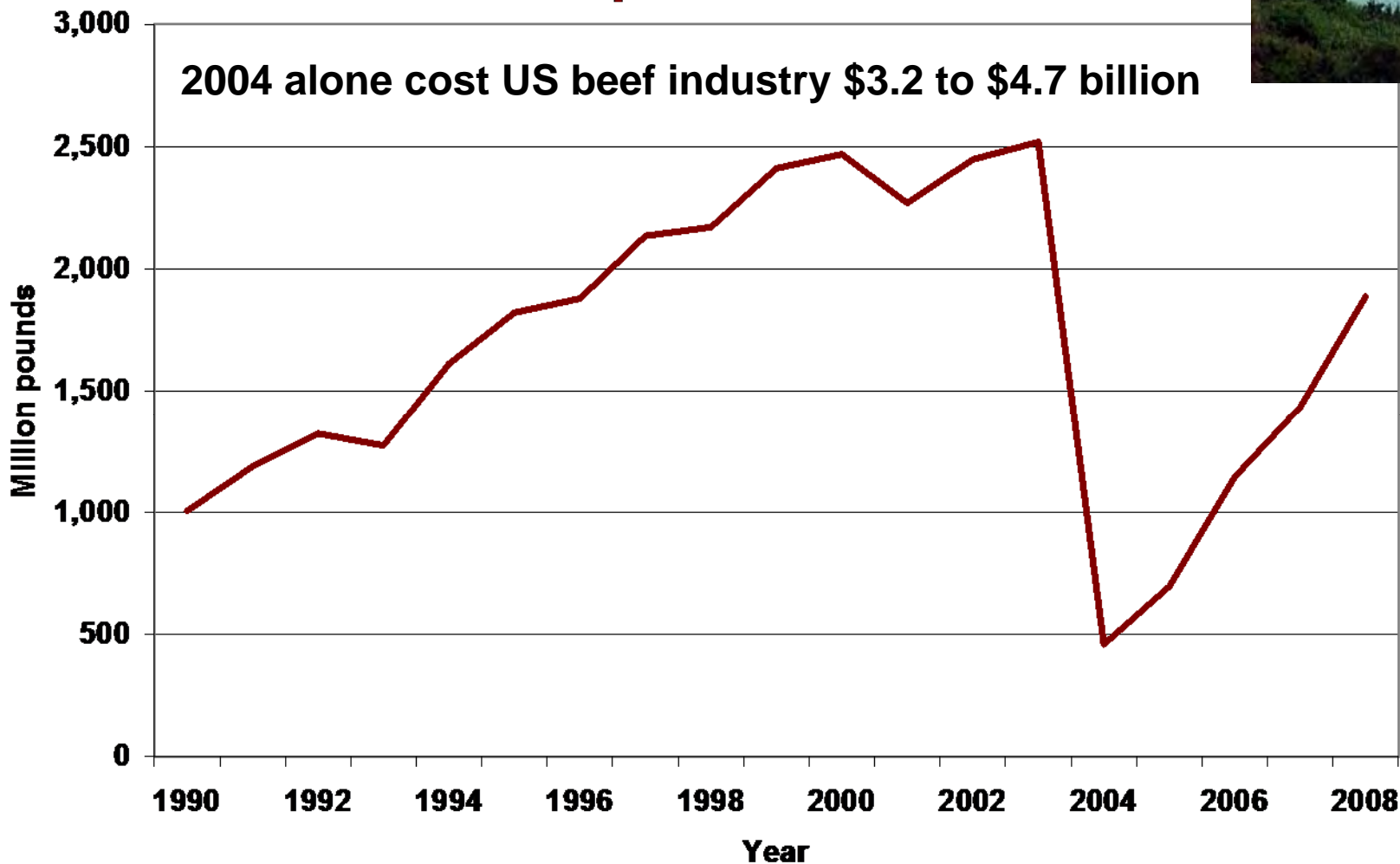
Source: USDA

# Market Access



## Beef Exports, 1990-2008

2004 alone cost US beef industry \$3.2 to \$4.7 billion



Source: USDA

# ***Market Access***

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**Estimated Economic Loss To Producers:**

**1-Day Export Market Closure (2007 Export Levels)**

**Beef Export Market Closure for 1 year – beef producer loss**  
**\$9.1 million per day = \$3.3 billion per year**

**Pork Export Market Closure for 1 year – pork producer loss**  
**\$3.1 million per day = \$1.1 billion per year**



# Animal ID & Tracing Systems becoming the *Global Standard*

| Country              | Cattle Population (mln head) | Premises ID | Individual Cattle ID | Group Lot ID | Electronic ID | Record Movement |
|----------------------|------------------------------|-------------|----------------------|--------------|---------------|-----------------|
| Australia            | 28.6                         | M           | M                    | V            | M             | M               |
| Brazil               | 207.2                        | M           | V                    | M            | V             | M               |
| Canada               | 14.8                         | V           | M                    |              | M             | V               |
| Uruguay              | 12.0                         | M           | M                    | V            | M             | M               |
| Japan                | 4.4                          | M           | M                    | V            | V             | M               |
| South Korea          | 2.5                          | M           | M                    | V            | V             | M               |
| European Union       | 90.4                         | M           | M                    | V            | V             | M               |
| Mexico               | 28.6                         | V           | V                    | V            | V             | V               |
| <b>United States</b> | <b>96.7</b>                  | <b>V</b>    | <b>V</b>             | <b>V</b>     | <b>V</b>      | <b>V</b>        |

Source: Bowling et al. (2008)

M = mandatory, V=voluntary

# *What if we do nothing?*

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## **Net Annual Gain in Total Beef Producer Revenue Less Variable Costs**

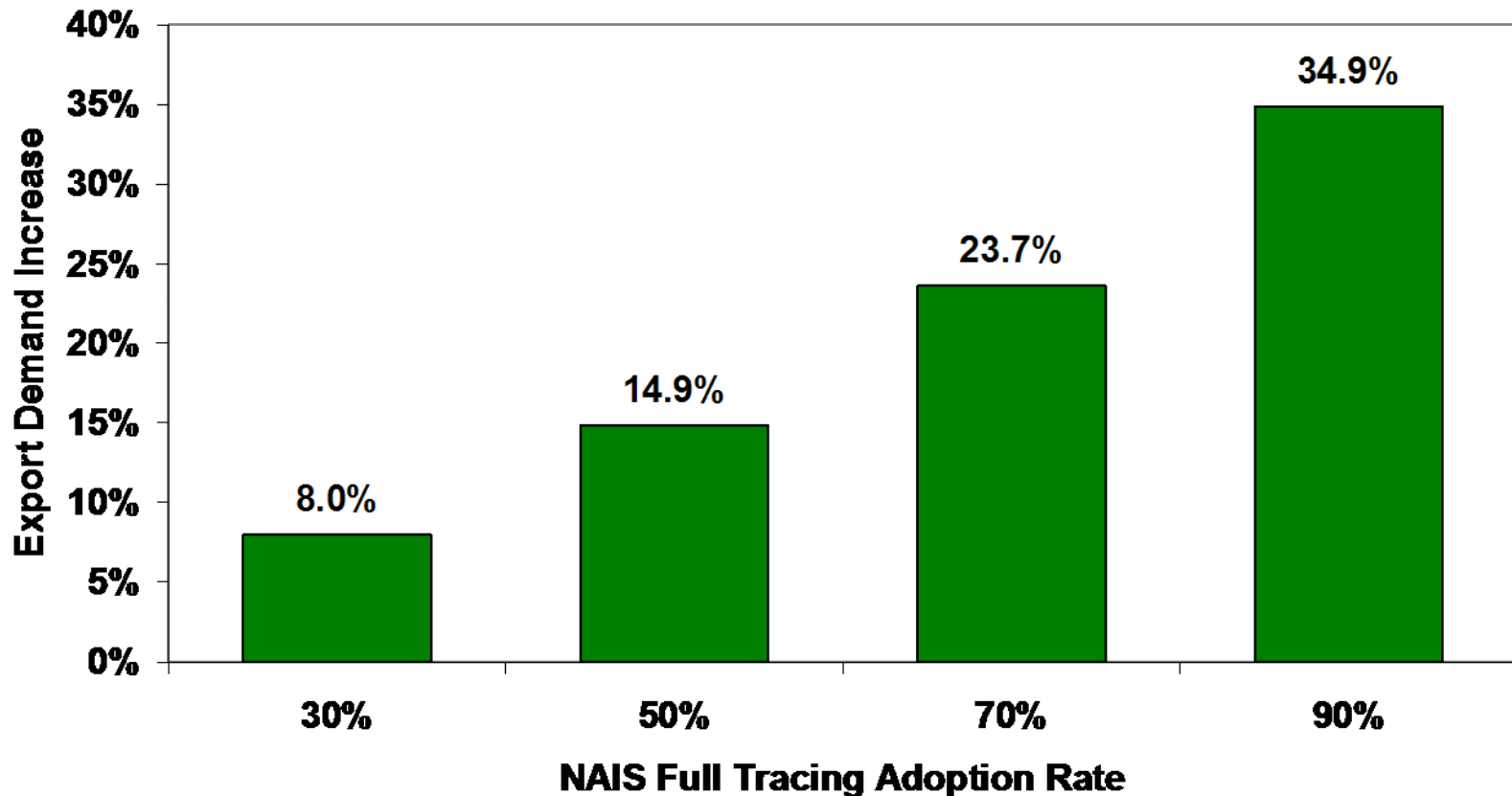
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| <b>Export Market Loss Status Quo</b> |                |                 |                 |
|--------------------------------------|----------------|-----------------|-----------------|
| <b>0%</b>                            | <b>10%</b>     | <b>25%</b>      | <b>50%</b>      |
| <b>(\$/head sold)</b>                |                |                 |                 |
| <b>\$0.00</b>                        | <b>-\$7.31</b> | <b>-\$18.25</b> | <b>-\$36.47</b> |

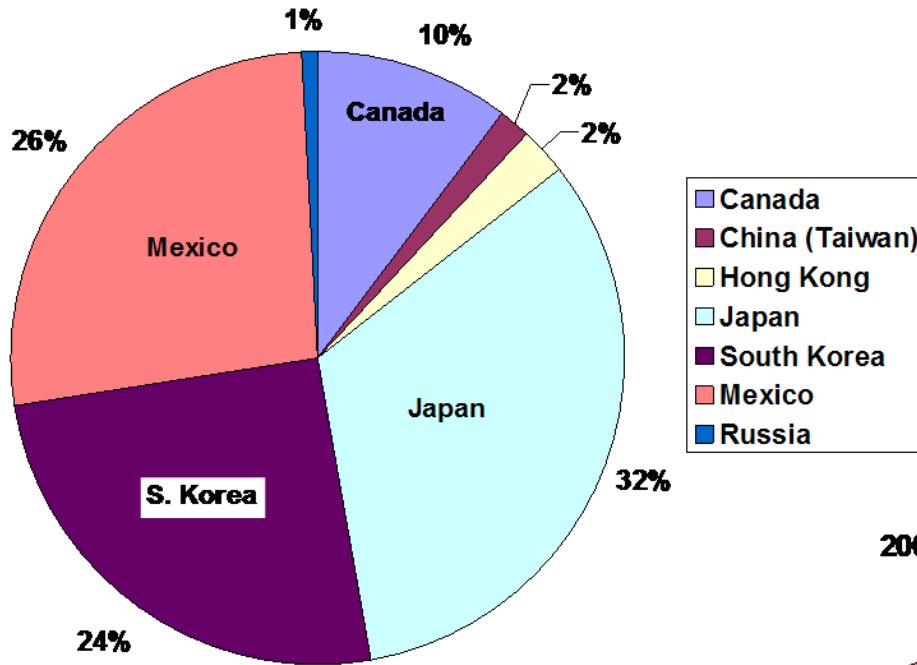
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# What if we do something?

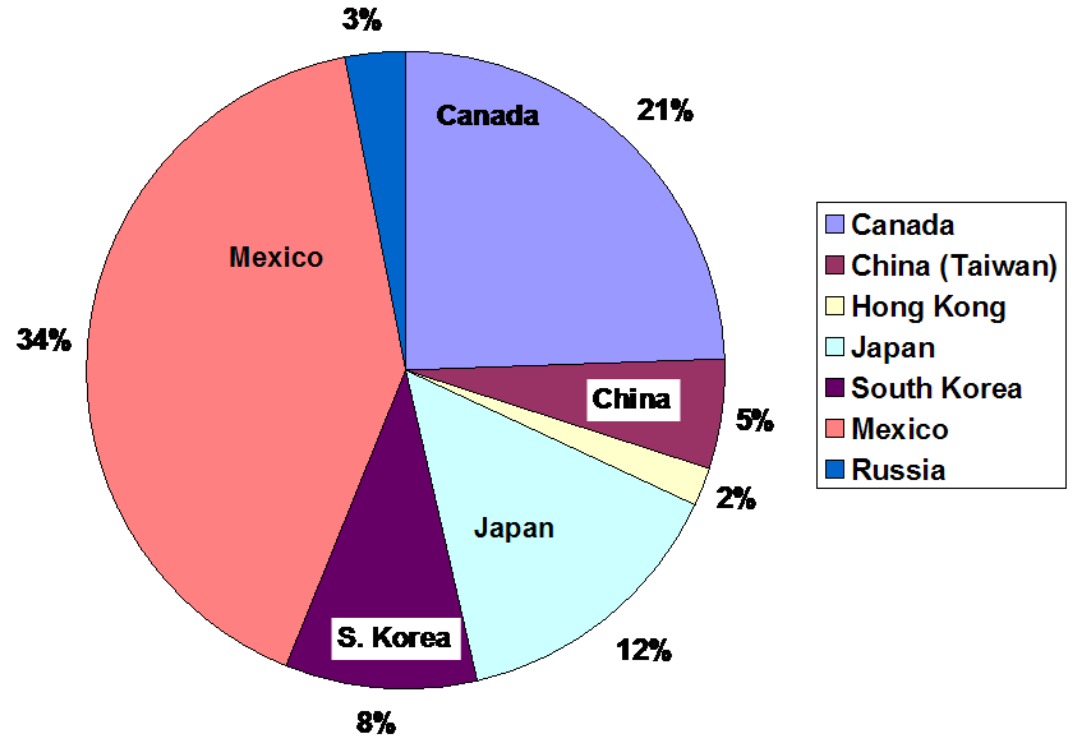
**Increased Beef Export Demand Needed so that Wholesale Beef, Slaughter Cattle, and Feeder Cattle Sectors Do Not Lose Any Cumulative Present Value 10-Year Surplus of Full Tracing by Adoption Rates**



**2003 Beef Export Market Shares**

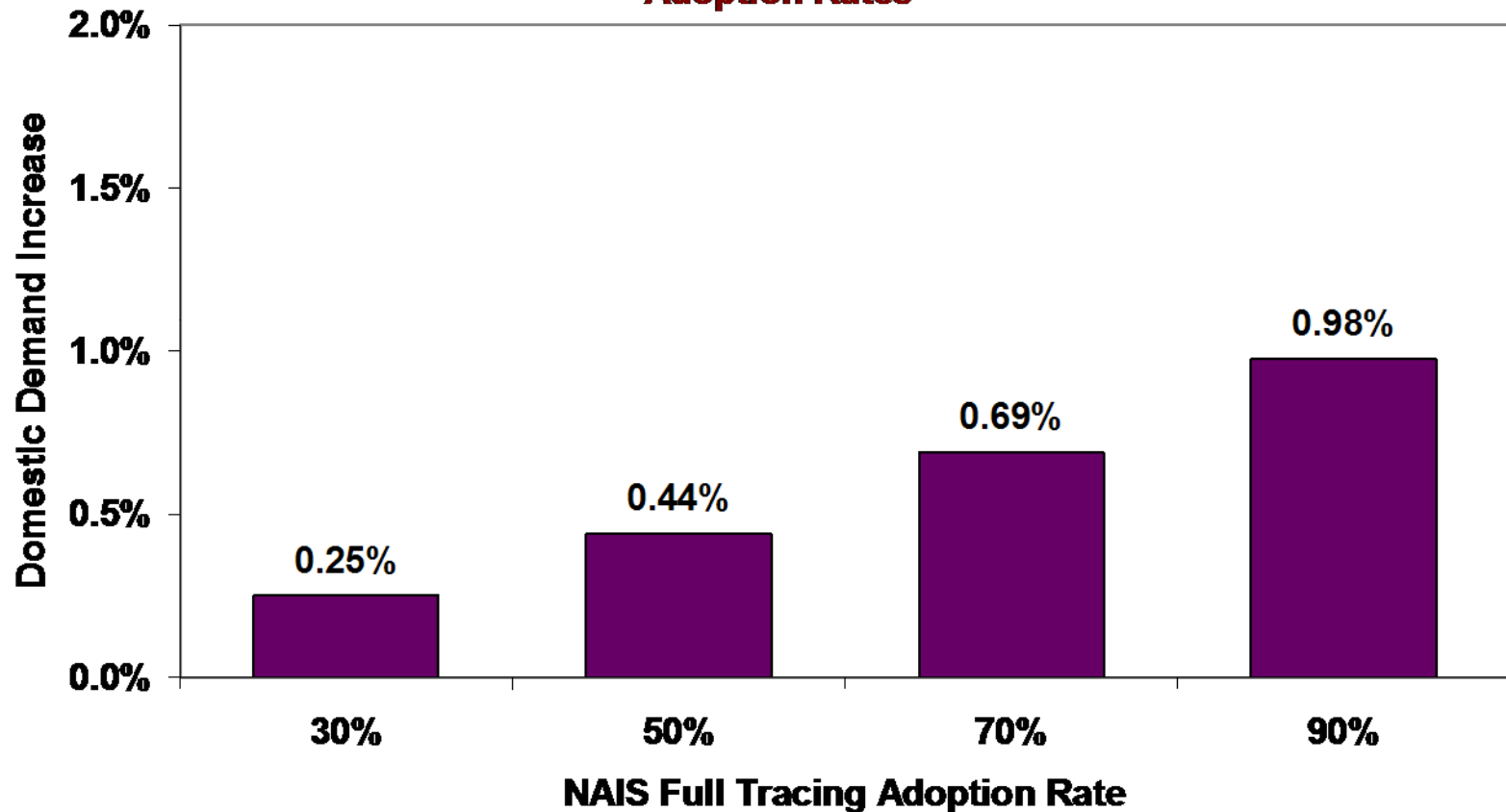


**2008 Beef Export Market Shares**



# What if we do something?

**Increased Domestic Beef Demand Needed  
so Wholesale Beef, and Slaughter and Feeder Cattle Sectors Do Not  
Lose Cumulative Present Value 10-Year Surplus of Full Tracing by  
Adoption Rates**



# ***So What Now?***

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- **Information age with “gatekeeper” demand driven by intrinsic product quality and trust**
- **Global protein market is very competitive and traceability is rapidly becoming a global standard**
- **If we do nothing, we will find global market access increasingly more difficult and could lose global markets**
- **If we adopt traceability, there is considerable expected economic value**

