

**Traceability** in Alberta



# Livestock Traceability

**Katherine Altman**  
**Food Safety Industry Day**  
**April 9, 2016**

[www.agriculture.alberta.ca/traceability](http://www.agriculture.alberta.ca/traceability)



Growing Forward 2 

A federal-provincial-territorial initiative

*Alberta*  Government

Canada

# What is Traceability?

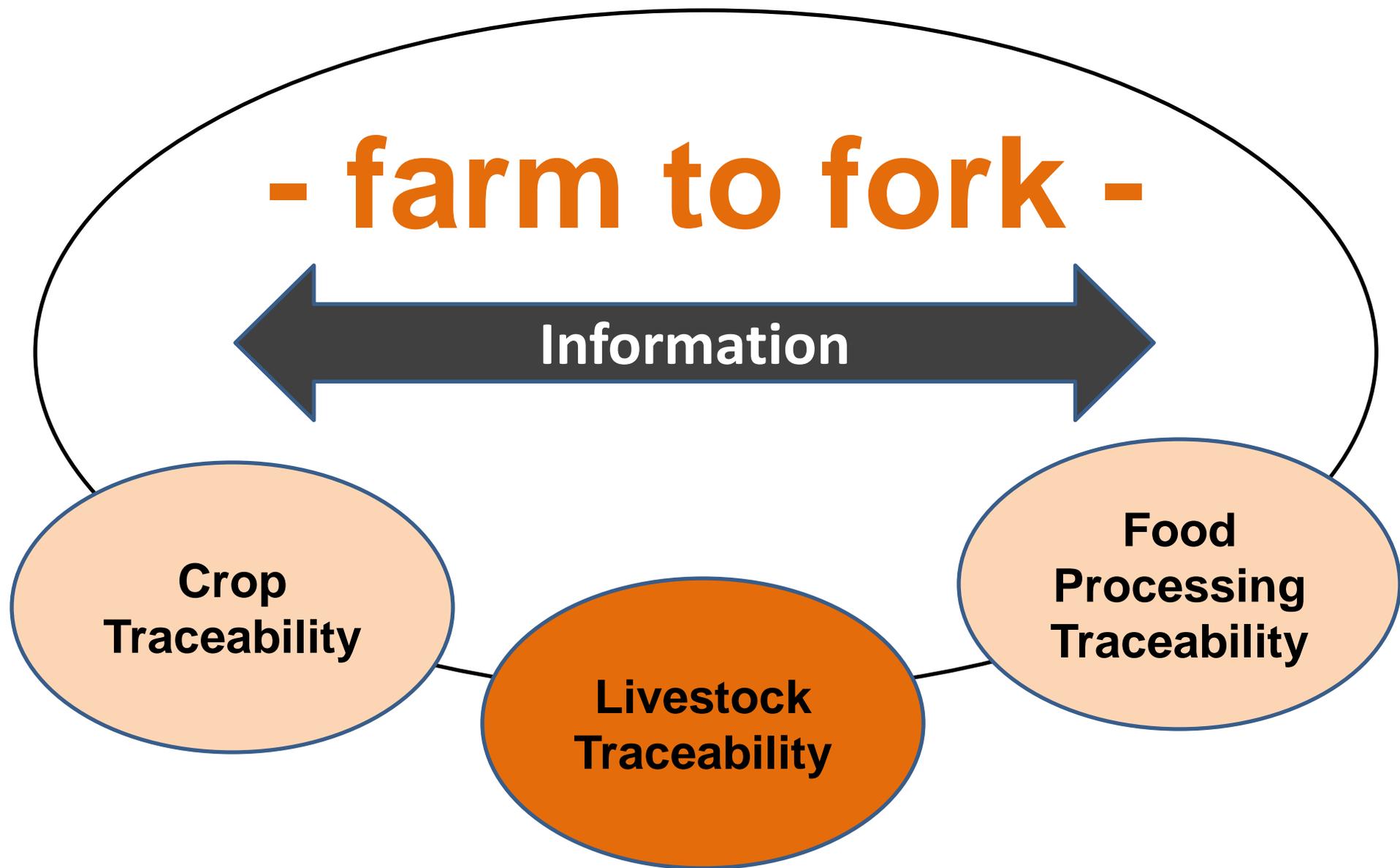
**- farm to fork -**

**Information**

**Crop  
Traceability**

**Livestock  
Traceability**

**Food  
Processing  
Traceability**



# What is Livestock Traceability?

**Livestock Traceability** is the  
**ability to track individual or groups of animals**

- be it livestock or poultry -

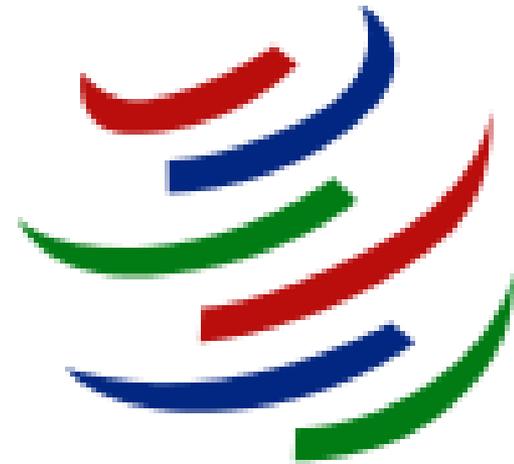
**Throughout their lifetime**

either backwards or forwards.

# Traceability in the World – Int’l Standards

## Government Approach

WORLD TRADE  
ORGANIZATION



[www.wto.org](http://www.wto.org)

# Traceability in the World – Int'l Standards

## Government Approach

**C O D E X**  
International Food Standards

**A L I M E N T A R I U S**



World Health  
Organization



Food and Agriculture  
Organization of  
the United Nations

[www.codexalimentarius.org](http://www.codexalimentarius.org)

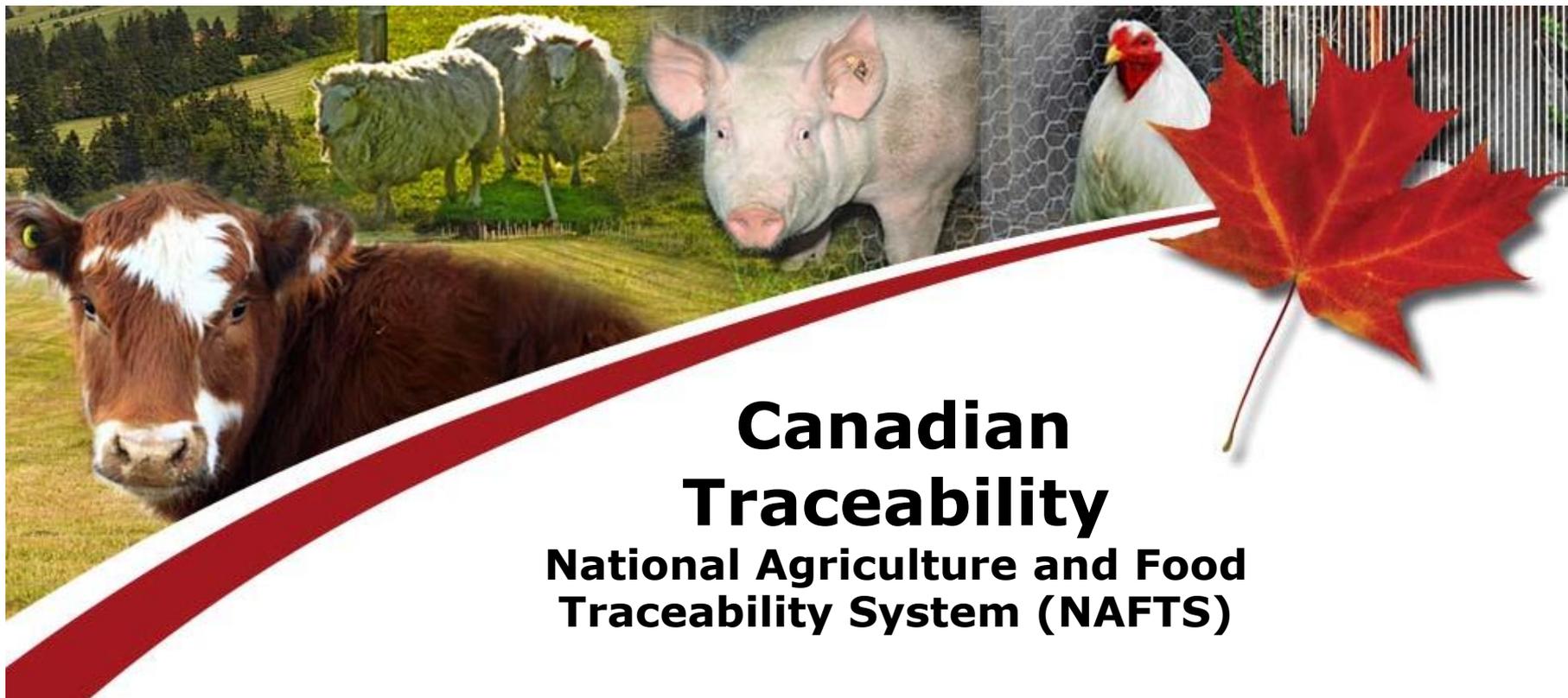
# Traceability in the World – Int'l Standards

## Government Approach



[www.oie.int/en](http://www.oie.int/en)

# Traceability in Canada



## Canadian Traceability

**National Agriculture and Food  
Traceability System (NAFTS)**



Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada

Canada 

<http://www.ats-sea.agr.gc.ca/trac/sys-eng.htm>

# Traceability in Canada

Traceability systems are important, effective **tools** that can be used for many things, including:

- **Protection of Animal Health**
- **Public Health**
- **Food Safety**

They can help **reduce response time**, limiting **economic, environmental and social impacts of emergency situations** such as disease outbreaks

# Traceability in Canada

## National Agriculture and Food Traceability System

species:

- **Bovines (beef cattle, dairy cattle, bison)**
- **Swine**
- **Sheep**
- **Farmed Cervids (elk, reindeer)**
- **Equine**
- **Poultry (commercial and non-commercial)**

# Traceability in Canada

## **National Agriculture and Food Traceability System**

to enhance:

- **Emergency Management**
- **Market Access**
- **Industry Competitiveness**
- **Consumer Confidence**

# Traceability in Canada – Why?

**National Agriculture and Food Traceability System**  
enhances **Emergency Management**



# Traceability in Canada – Why?

**National Agriculture and Food Traceability System**  
enhances **Market Access**



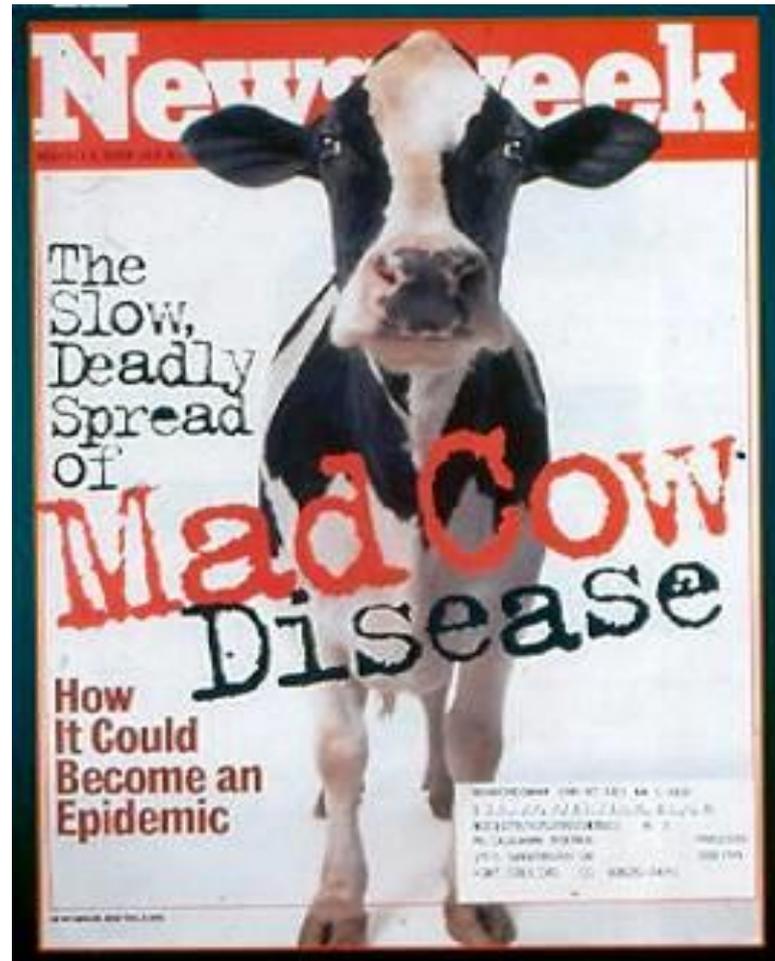
# Traceability in Canada – Why?

National Agriculture and Food Traceability System enhances **Industry Competitiveness**



# Traceability in Canada – Why?

National Agriculture and Food Traceability System enhances **Consumer Confidence**





# **BIG ENOUGH TO SUPPLY** **SMALL ENOUGH TO SERVICE**

[WHY XL FOODS? LEARN MORE HERE.](#)

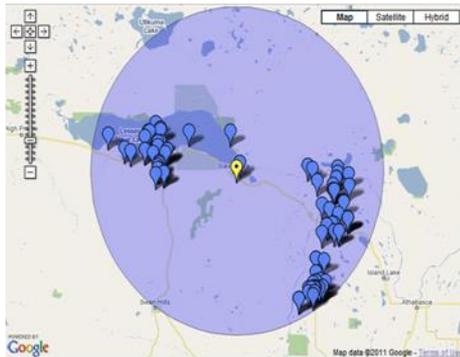


# Livestock Traceability in Canada – 3 Pillars

## Livestock Traceability is based on 3 pillars

### Premises Identification

Unique identification of land parcels



### Animal Identification

Unique identification of individual animals or homogenous groups of animals



### Animal Movement

Ability to track animal movements from premises to premises



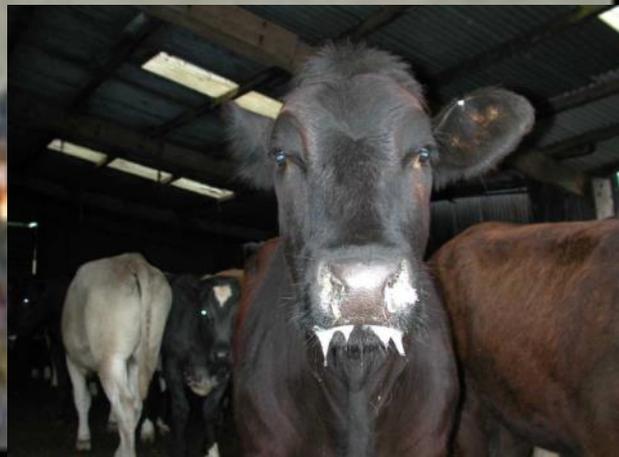
# What is Premises Identification (PID)?

**Premises Identification (PID)**  
is a unique identifier  
associated with a geographic location





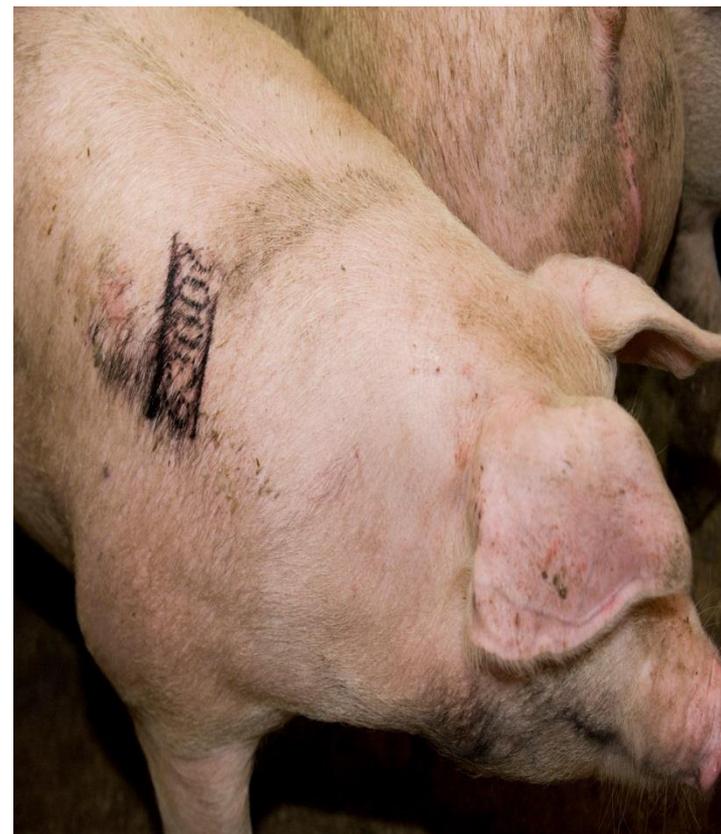




# What is Animal Identification?

## Animal Identification

is a unique identification of individual animals or homogeneous groups of animals



# Animal Identification

## Canadian Cattle Identification Agency (CCIA)

- Administer Canadian Livestock Tracking System (CLTS) database for
  - Beef Cattle
  - Dairy Cattle
  - Bison
  - Sheep
- Authority under the federal *Health of Animals Regulations*
- Administers issuance of federally approved RFID tags
- “Retire tags”, both approved and revoked, in the CLTS within 30 days of the animal’s death or slaughter, including dead stock



# Animal Identification

## Alberta Pork

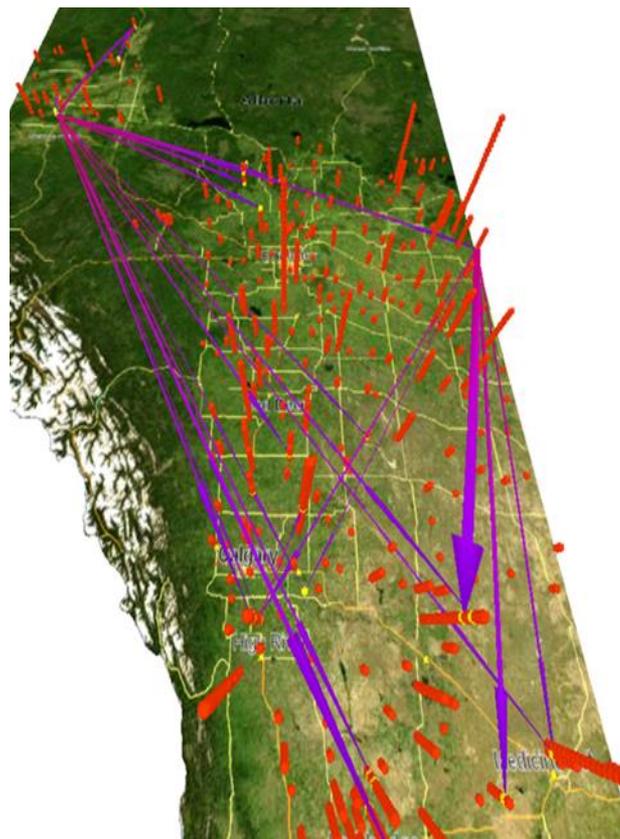
- Authority under the Alberta Animal Health Act's *Swine Traceability Regulation*
  - Pigs
  - Farmed Wild Boar
  - Dead stock
- Came into effect July 1, 2014 at the same time as the federal regulation
- Administers the issuance of federally approved swine identifiers
  - Shoulder Slap tattoo
  - Approved tag
- Registered tattoo in Alberta will have five digits and should end in the number six
- Number is listed on a Swine producers card



# What is Animal Movement?

## Animal Movement

is the ability to track animal movements from premises to premises



# Animal Movement: Reporting

## Alberta Livestock Manifest

This information is collected for the purposes of the Livestock Identification and Commerce Act and is governed by the Freedom of Information and Protection of Privacy Act. For further information contact LIS at 109, 264 Midpark Way SE Calgary, Alberta T2X 1J6 or by phone at: (403) 609-2088 or (866) 509-2088

### LIVESTOCK IDENTIFICATION SERVICES LTD. ALBERTA LIVESTOCK MANIFEST

<b>Part A - Purpose of Manifest</b>		<b>LIS Use Only</b>				
<input type="checkbox"/> Transport Only	<input type="checkbox"/> Transport for Sale by Owner	<input type="checkbox"/> Dealer on Behalf of Owner	<input type="checkbox"/> Inspection Only			
Check if Livestock Security Interest Declaration is by Separate Document <input type="checkbox"/>						
<b>Part B - Transportation and Sale Details</b>						
Pen or Lot Number	Date: YYYY / MM / DD					
Owner or Dealer Name (Print Clearly & Press Hard)	Phone #					
Owner or Dealer Address						
On Account Of						
Pay To (If Other Than Owner or Dealer)	Address					
Transport From Address	Premises ID					
Transport To Name						
Transport To Address						
<b>Description of Livestock</b>						
Number	Colour	Kind	Brand(s) / Identifier(s)	Loc.	AV	Other Information
					Y/N	
					Y/N	
					Y/N	
					Y/N	
					Y/N	
					Y/N	
					Y/N	
Total						
<b>Part C - Parts A and B Certification</b>						
I CERTIFY THAT PARTS "A" AND "B" ARE TRUE						
X Signature of Owner or (If Permitted) Owner's Agent						
<b>Part D - Inspector</b>						
Adj. Total	Inspector Signature	Inspector #	Client #			
Inspection Site #	# NOT eligible for Livestock Assurance Fund	# Eligible for Check-Off	Livestock Permit #			
<b>Part E - Transporter</b>						
Transporter's Name (Print)			Trailer or Conveyance License #			
Transporter's Signature	Phone #	Trucking Charges				
<b>Part F - Livestock Security Interest Declaration (If Sale by Owner)</b>						
Name of the Holder of Livestock Security Interest in the Livestock or the Dam of the Livestock or if None Indicate "NONE"						
Address of the Holder of the Livestock Security Interest Declaration						
I CERTIFY THAT THIS DECLARATION IS TRUE						
X Signature of Owner						Date YYYY / MM / DD
<b>Part G - Destination</b>						
Date and Time Received	Time	Count	Placed in Pen #			
Received and Counted By (Print Name) / Signature	Premises ID					

HEAD OFFICE COPY



LIVESTOCK  
IDENTIFICATION  
SERVICES LTD.

Ensure the following:

- Manifest is filled out completely, correctly and legibly
- Includes a description of Livestock
- Retain copies of producers' Bills of Sale
- Retain manifest records for 10 years

# Animal Movement: Reporting

## Alberta Pork manifest

Receiver (Destination)	
Premises ID of Destination	Premises Name
Comments	
Receiver (or Representative's) Name (please print)	Destination / Exporter Reference (optional)
Receiver (or Representative's) Signature	Received Date & Time
	# Head Rec'd

Head Use

- Slaughter
- Farm (Grow)
- Farm (Breed)
- Re-Ship Outside Alberta

Y Y Y / M M / D D @ H H : M M am/pm

Ensure the following:

- Manifest is filled out completely, correctly and legibly
- Any swine arriving at the facility accompanied by Manifest
- Receivers must submit the manifest to Alberta Pork within 48 hours after receiving a load
- Receivers must retain manifest records for 5 years

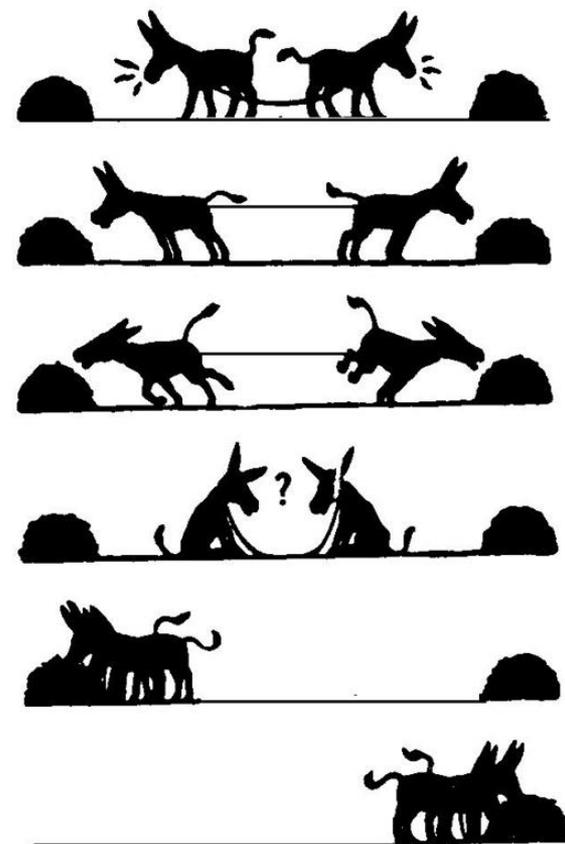


# Why is Livestock Traceability Important?

## Important to both Government and Industry:

- **Preparing** for, **responding** to and **recovering** from animal health, human health and food safety emergencies
- Ensuring that **production capacity** and **market access** are not jeopardized

### "Co-operation"



# Why is Livestock Traceability Important?

## Ensuring Production Capacity

Canada's largest food-service provider requires **64 million pounds** of traceable beef per year



# Why is Livestock Traceability Important?

## Where is Alberta's Beef Exported?

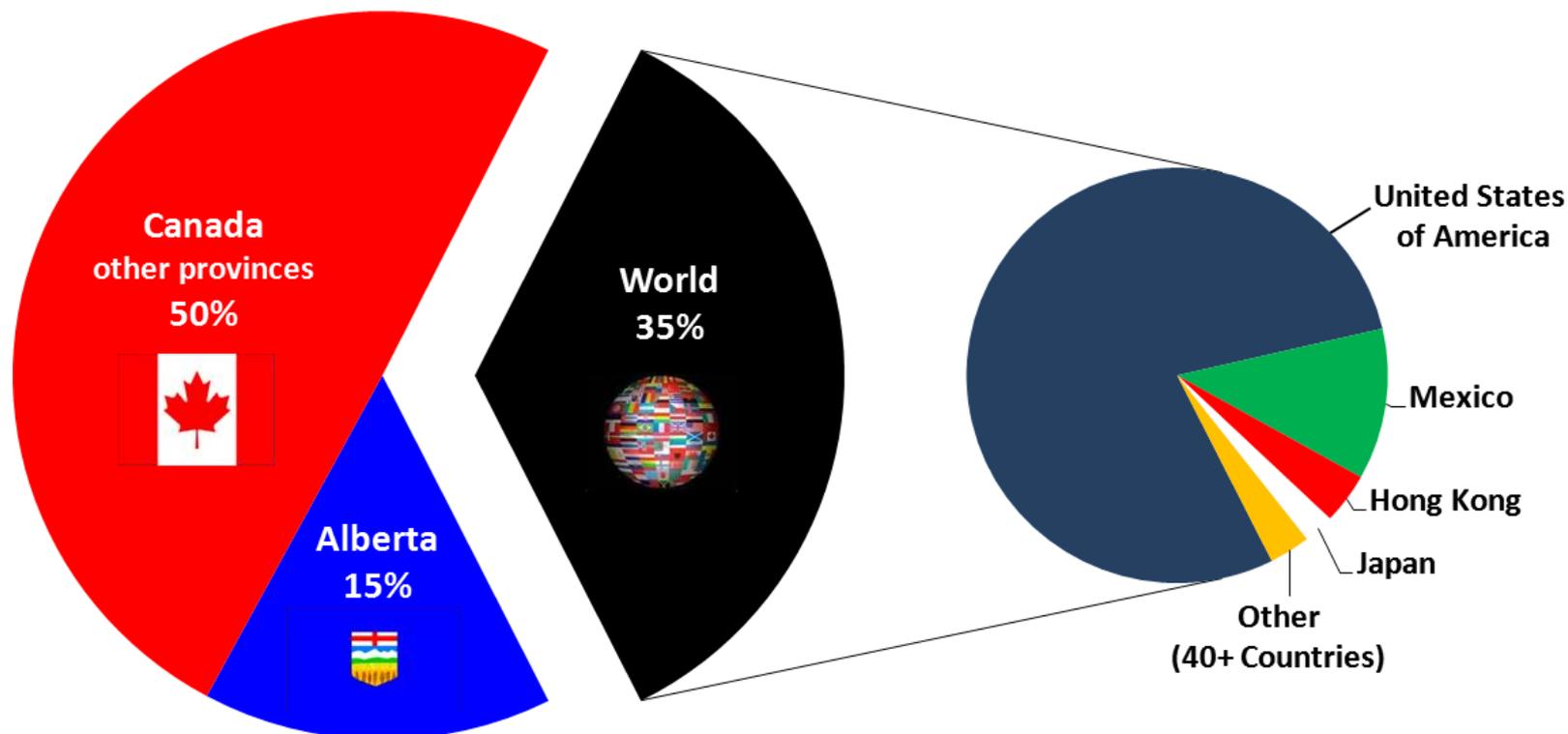


Chart results are based on Beef volumes (**excluding edible offal**) at 5 Year average (2007 – 2011). Statistical data for edible offal is only available for Export; not for consumption in Alberta and Canada.

# Why is Traceability Important?

## Economic Benefits Of Animal Tracing In The Cattle Production Sector

If tracking time could be reduced from:	Loss avoided from decreasing tracking time to two days		Loss as a percentage of value of the Texas cattle production sector
	at least	at most	
8 days to 2 days	\$ 3.4 billion	\$ 7.2 billion	20% to 44%
7 days to 2 days	\$ 2.1 billion	\$ 6.8 billion	13% to 43%
4 days to 2 days	\$ 78,000	\$ 2.4 billion	< 1% to 13%
3 days to 2 days	\$ 26,000	\$ 207,000	< 1% to <1%

Annual costs of the NAIS for the Texas cattle industry were estimated to be \$112 million.

SOURCE: Levan Elbakidge (Texas A&M University) August 2007.

# Beef Guiding Principles

Created by the department and industry working together:

- Traceability will support industry standards for commerce
- The traceability system for the beef cattle industry will enhance the competitive position of the industry
- Traceability will expand as appropriate technology to support initiatives as available
- Industry standards will drive tolerance ranges for tag readability and retention
- Producer information must remain confidential

# Legislative Support

## ➤ Federal *Health of Animals Act*

- RFID (Radio-frequency Identification) tagging requirements from Herd-of-Origin to tag-retirement at death (natural or slaughter)

## ➤ Alberta *Livestock Identification Act (LICA)*

- Livestock Transportation: provincial requirements for the recording and/or reporting of livestock movement (beef cattle, dairy cattle, horses and sheep)
- Livestock Inspections

# Legislative Support

- Alberta *Animal Health Act (AHA)*
  - Includes all domestic animals, excluding pets
  - Enables full traceability and swift response to disease issues
  - Authority for decisive response, including diseases threatening public health
  - Proclaimed (in part) on January 1, 2009 with these traceability regulations:
    - Traceability Premises Identification Regulation
      - Animal Owners, except those who are never in care/control of their animals, must have a PID Account and at least one PID Number
      - Operators of Commingling Sites must have a PID Account and PID Numbers for each operation

# Legislative Support

- Alberta ***Animal Health Act (AHA)*** CON”T....
  - Traceability Cattle Identification Regulation
    - Tag calf within 10 months of age or before they leave the farm-of-origin, whichever comes first
    - Record the calves age in the CLTS within 10 months of age or before they leave the farm-of-origin, whichever comes first
    - Feedlots feeding over a 1,000 head annually report the “move-in event” individual animals into the CLTS (effective March 1, 2010)
  - Swine Traceability Regulation (Proclaimed July 1, 2014)
    - Application of Swine Identifier
    - Full movement reporting

# Support for Industry

## Growing Forward 2

**Food Safety Systems  
Producer Program**

**Livestock Welfare  
Producer Program**

**Animal Health Biosecurity  
Producer Program**

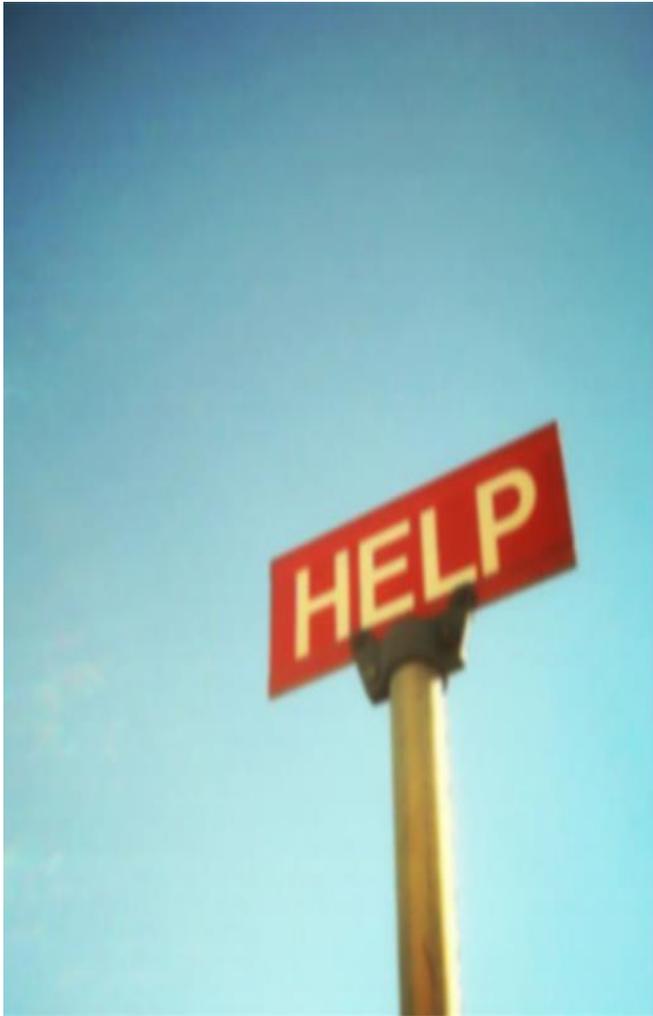
**RFID Reader Loan-Out  
Program**

**Traceability Technology  
Adoption Program**

- Cow/Calf RFID Technology
- Feeder Cattle RFID Technology
- Sheep RFID Technology

# Support for Industry

## Boots-On-the-Ground



### **Ag-Info Centre**

310-FARM (3276)

### **Ag Field Office Administrator**

12 Staff across province

### **Alberta Pork Traceability Coord**

1-877-247- PORK (7675)

### **CCIA MFR Team**

11 Staff across province

### **LIS Livestock Inspectors**

Approx. 90 Staff across province

# Traceability in Alberta



## Traceability Protects!

Your Animals – Your Livelihood – Our Future

Katherine Altman

Livestock Traceability

[Katherine.altman@gov.ab.ca](mailto:Katherine.altman@gov.ab.ca)

[www.agriculture.alberta.ca/traceability](http://www.agriculture.alberta.ca/traceability)



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# Traceability in Alberta



## Age-verification (AV): An Assurance Added Program

[www.agriculture.alberta.ca/traceability](http://www.agriculture.alberta.ca/traceability)



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# Determining Age in Cattle

## ➤ Dentition

- Not preferred by international trading partners
- Variation in hormonal development/maturity
- A trained individual visually examines the incisor teeth to determine age at plant

## ➤ Age Verification

- Preferred by international trading partners and most accurate
- birth date information in the national CLTS database
- entered by original owner and accessed by plants

# What is Age-verification (AV)?

**The process of linking an animal's birth date to its unique, federally-approved CCIA RFID ear tag**

➤ **3 Step Process:**

- Maintain on-farm birth records
- Tag each animal with a unique, federally approved CCIA RFID ear tag
- Upload birth data into CCIA's Canadian Livestock Tracking System (CLTS)

**Can only be completed by the original cattle owner!**

# What Does This Look Like in Alberta?

- Mandatory in Alberta and effective as of January 1, 2009
- The **original owner** of all calves born in Alberta, after **January 1 2009** must do the three-step process
- **Must occur within 10 months of age or prior to leaving the farm-of-origin, whichever comes first!**

**AV records must be maintained for 10 years!**

# Alberta Perspective: Why is Traceability Important?

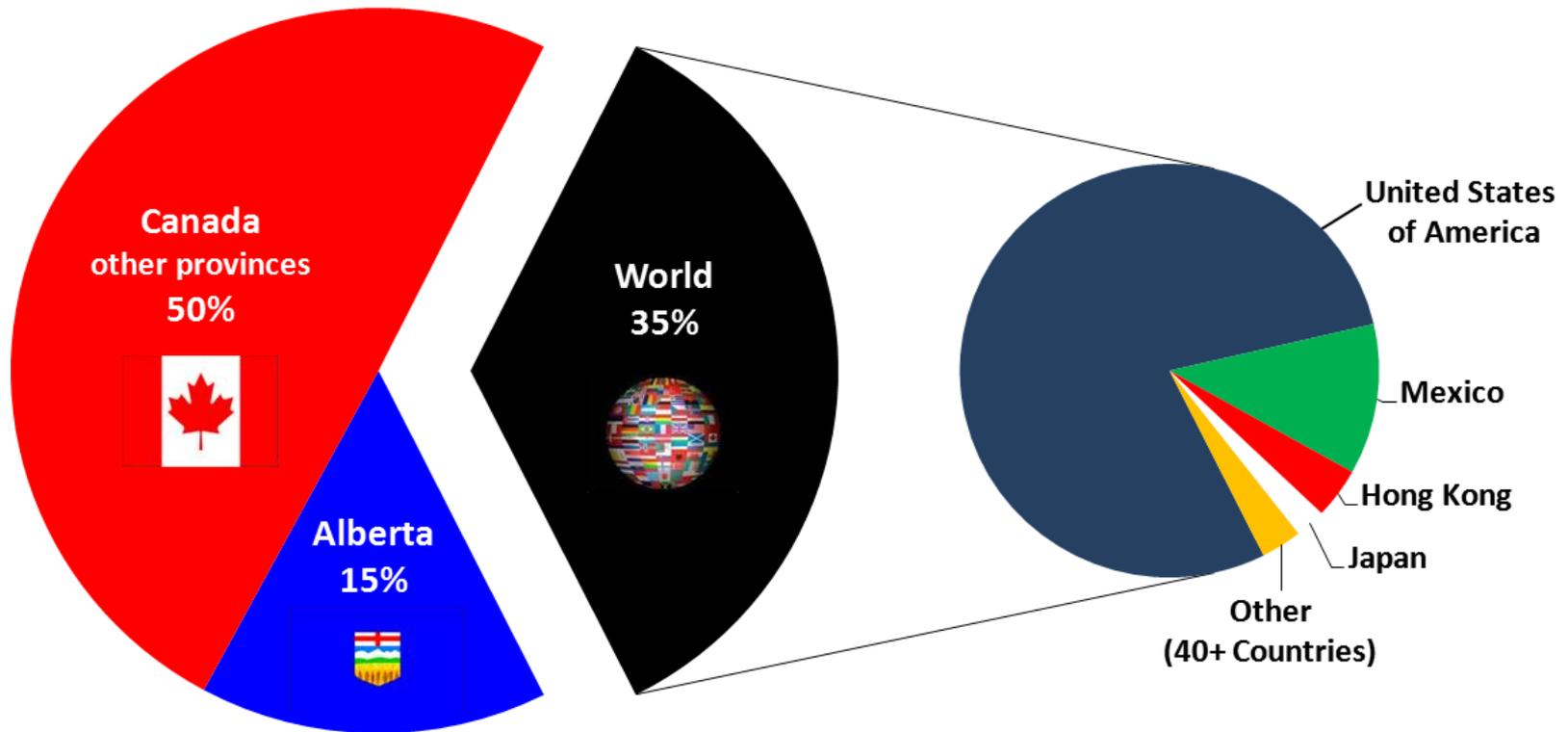


Chart results are based on Beef volumes (**excluding edible offal**) at 5 Year average (2007 – 2011). Statistical data for edible offal is only available for Export; not for consumption in Alberta and Canada.

# How AV Helps Alberta's Industry

## Market Access

- Data Integrity
  - AV "birth-date event"
- Source Verification
- Permitting
  - Import requirements for cattle 5 years or older

## Industry Competitiveness

- Animal Health Management
- Product Differentiation
- Supply Chain efficiency
- Aids in making a trace-back more efficient and effective

# How AV Helps Alberta's Industry

## Emergency Response

- Disease investigation and response
- Surveillance
  - “**at risk**” animals for chronic diseases can be identified
- Permitting
  - Off-farm transport of SRM

## Consumer Confidence

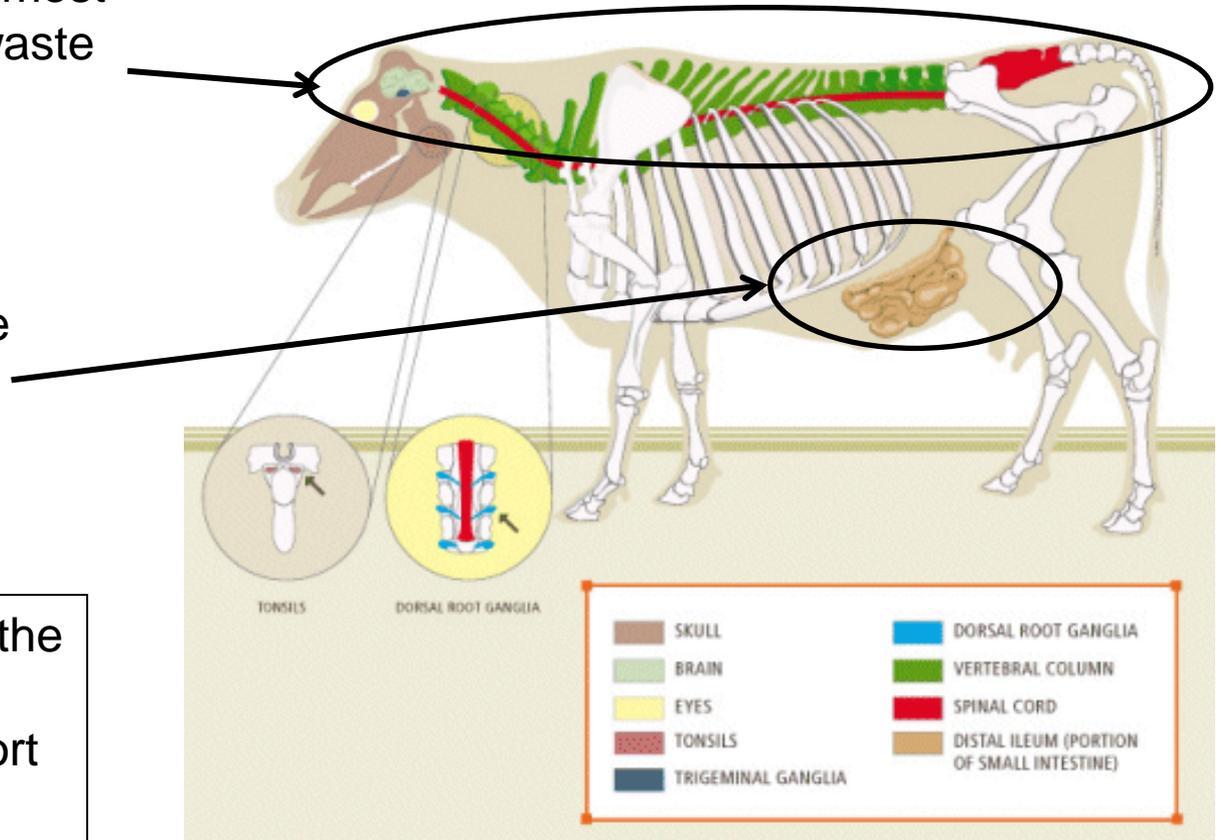
- Source Verification/  
Product Branding
- Food Safety
  - Age impacts on what can be used

# What's in a Birth Date?

Over 30 month cattle – almost 15% of slaughterhouse waste must be removed and destroyed

All cattle – a portion of the small intestine must be removed

Age mistakes slow/stop the line costing money and cause concern with export markets



# Issues

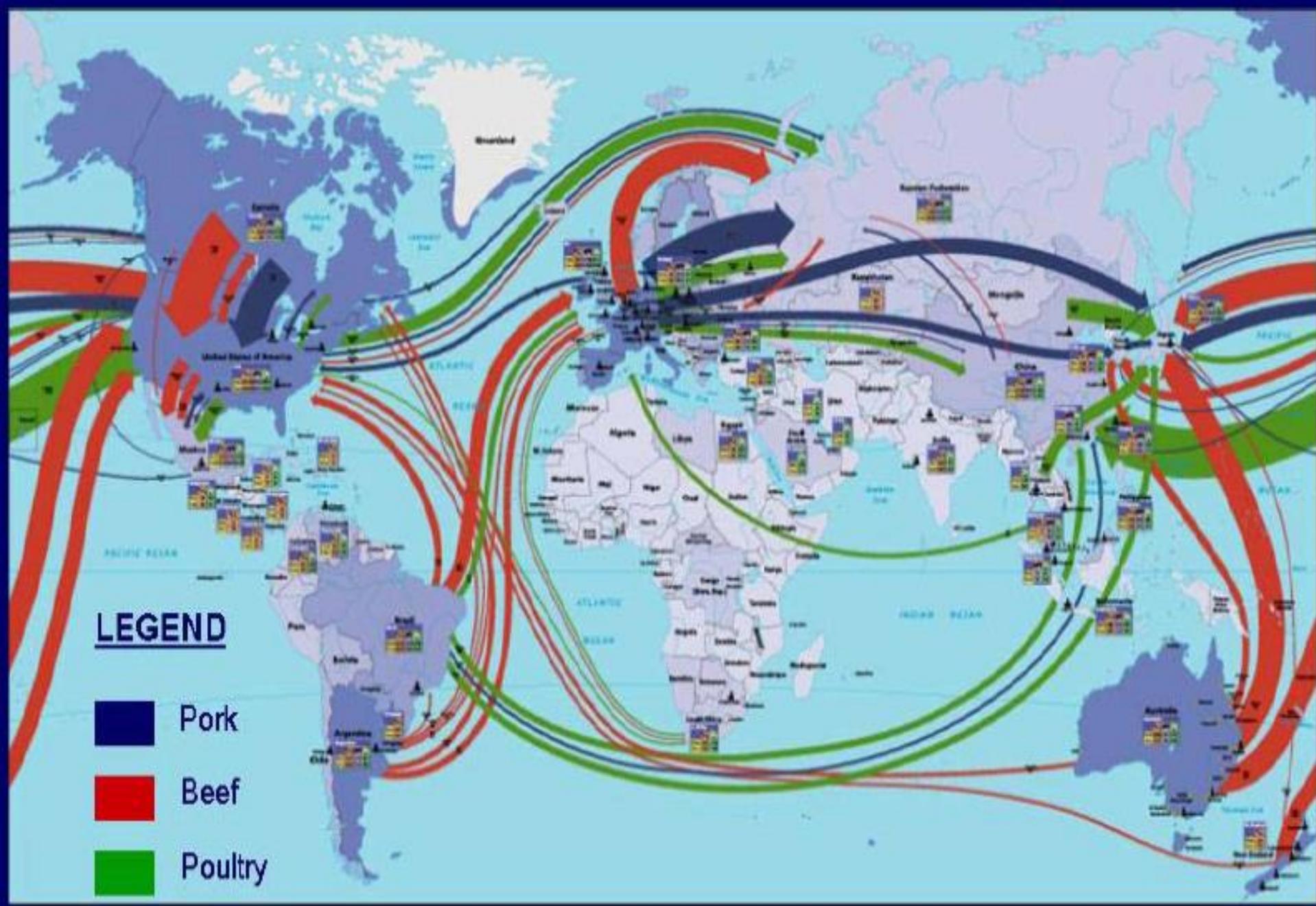
- Dentition not Accurate
  - Not preferred process by international markets
    - Some teeth erupt before 30 months
  - Can result in premature aging of animals
- Lack of Data in National Database (CLTS)
  - Not everyone participating
    - Process driven by value of retaining markets
    - Lack of birthdate and the plant defaults to dentition method to age verify

# Issues

- Data Integrity in National Database (CLTS)
  - Inaccurate birthdate information
    - No check n' balance in CLTS database
    - On-farm record management issues
  - if not caught at feedlots in-take/processing will result in animals being sent to the plant and discounted
    - MFRs notified too late to be able to contact herd-of-origin for purpose of fixing data

## The Result?

- Breakdown of trust in value chain as animals bought in good faith as correctly AV'd



- At any one time, 40,000 ships are carrying animals and animal products
- Movement of animals and animal products is expected to double by 2020

# Traceability in Alberta



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