Traceability and the Canadian Livestock Value Chain

Protecting the Health and Safety of our Livestock Industry

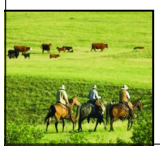
2008 BIF 40th Annual Meeting
June 30th - July 3rd
Calgary Alberta Canada

Points of Discussion

- Canadian Livestock Traceability and Value Chain Strategy
- Global Traceability
- Traceability System Components
- Value Chain benefits/opportunities
- Next Steps

Canadian Livestock Traceability and Value Chain Strategy

- ✓Increase consumer confidence
- ✓Increase market access
- ✓Remain competitive



Global ID and Traceability

Country	Program	Species	Voluntary or Mandatory	Year Implemented	Current type of ID device used	Production Cycle covered
Argentina	Export Cattle Identification System	Cattle	Mandatory for Export	2003	Visual Ear Tag	Farm of Origin to Slaughter
Australia	National Livestock Identification System	Cattle Sheep Goats	Mandatory	Cattle Premises Registration since 1960;Indiv ID in 2005. movement in 2006 Sheep and goats: Initial implementation in 2006; full implementation in 2009	Cattle: electronic RFID ear tag or rumen bolus combination Sheep and Goats: visual ear tags	Farm of Origin to Slaughter
Brazil	Brazilian System of ID and Certification of Origin for Bovine and Buffalo	Cattle and Bison	Mandatory	First Phase 2002: Mandatory - export to EU Second Phase 2006: Mandatory - all foreign exports Third phase 2006: Mandatory for all Foot and Mouth disease areas Fourth Phase 2007; All beef producers	Visual ear tag combined with button ear tag, electronic device, tattoo or iron brand	Farm of Origin to Slaughter

Global ID and Traceability (cont'd)

Country	Program	Species	Voluntary or Mandatory	Year Implemented	Current type of ID device used	Production Cycle covered
European Union		Cattle, buffalo, bison, sheep, goats, equine, swine	Mandatory	Cattle, buffalo, bison and equine – 2000 Sheep and goats – 1992 Swine - 1992	Cattle, buffalo, and bison; double ear tag and passport Equine: passport Sheep and goats: double ID Swine: ear tags or Tattoos	Farm of origin to retail
Japan	Beef Traceability Law	Beef Cattle	Mandatory	2003	Ear Tags with minimum requirements	Farm of Origin to Retail

Global ID and Traceability (cont'd)

Country	Program	Species	Mandatory or Voluntary	Year Implemented	Current Type of ID device used	Production Cycle covered
Canada	CCIA Canadian Sheep Identification Program	Cattle and Bison Sheep	Mandatory	2001	1999 - Bar Code Tags 2005 - 124 RFID tag 2005	Farm of Origin to carcass inspection or export
United States	NAIS – National Animal Identification System	Focus on Tier 1 – Beef and Dairy Cattle	Voluntary - ability to identify 70% of breeding animals to their premises of origin by Dec 2009 - focus on disease programs	2004	Technology Neutral - Approved NAIS devices - 840 RFID Tag	Premises of Origin to Point of Slaughter

The Canadian Livestock Traceability System

- Phased in implementation – 10 years
- National Administrator
- Proven successful industry/government partnership
- Industry Sustainable
- National Standards
- 99% program compliance
- Invaluable assistance during BSE Investigations
- Multi-species
- Value-Added services
- WLIC/USDA

Ear tags now applauded

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Animal ID Events
- Provide unique identifier
- Associates the animal identification number with a location and time
- Report association of each identifier to the herd of origin
- Retirement of unique identifier
- Loss of identifier
- Replacement of identifier

Premises Data
- Provide unique identification of a physical location
- Premises Identifier needed for movement or sighting events
- Contains data that does not significantly change over time and contains only public data

Movement/Sighted Events
- Requires an efficient data collection system for rapid data acquisition, which is achieved with the adoption of RFID and automated reading installations
- Incorporates historical detail that can be queried

Animal Identification Events
Premises Data
Movement/ Sighted Events

Traceability
– 3 Core Elements
Plus Value-Added

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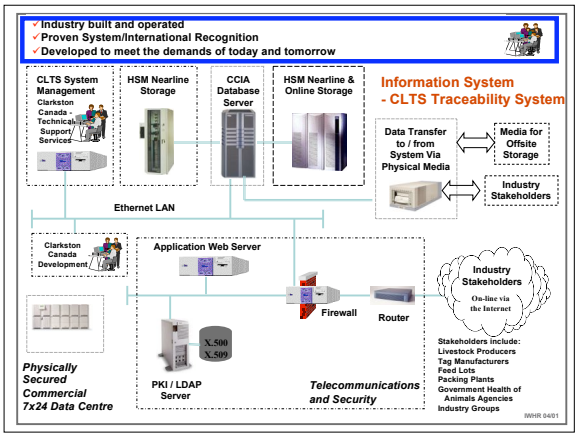
National Identification and Traceability - Key Components

- Information System
- Legislation/Regulations
- National Standards
- Technology
- Communications

- Industry built and operated
- Proven System/International Recognition
- Developed to meet the demands of today and tomorrow



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Legislation/Regulations

Canadian Food Inspection Agency | Agence canadienne d'inspection des aliments

- The Canadian Federal Health of Animals Act - Section 64. (1) (y) is the Canadian Federal Government Legislation providing for:

  "A National Identification System for animals for the purpose of determining the presence of and controlling or eradicating animal disease"

- Compliance and Enforcement Strategy

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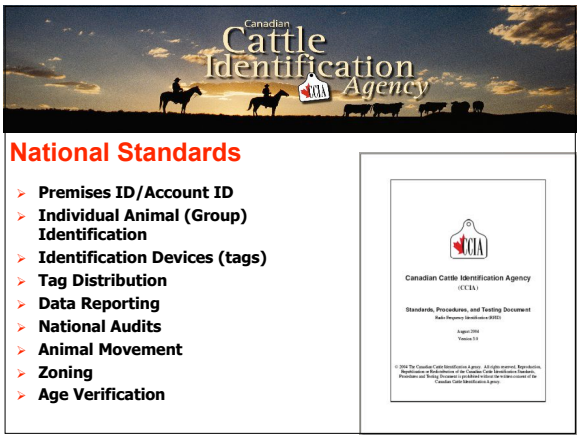
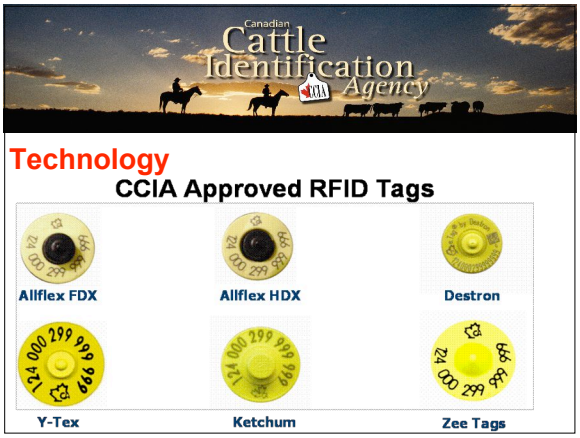
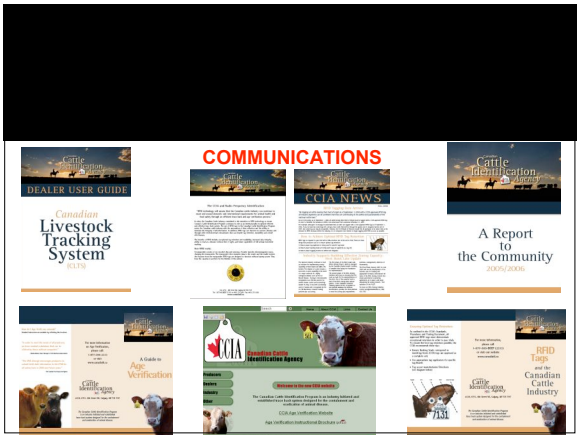
Protecting our Industry
- Animal Health Investigations

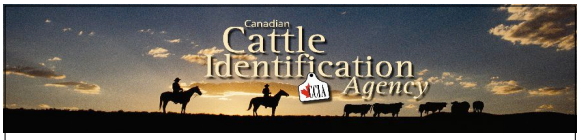
Information as provided to CFIA for BSE Investigation:
- contact information of producers involved in the investigation
- tag inventory of all suspect/quarantined herds involved in traceout
- tag history/activity on all tag numbers
- retirement data from packing plants and deadstock operators
- export data on Canadian cattle moving into the US
- CCIA tags were key to confirming the herd of origin

** International review committee very complimentary of the BSE investigations*



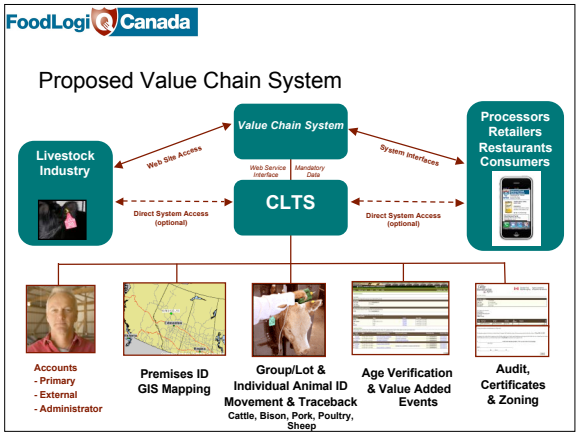


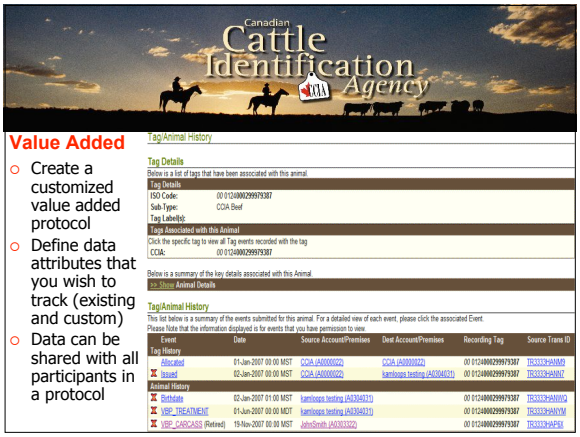




Value-Added?

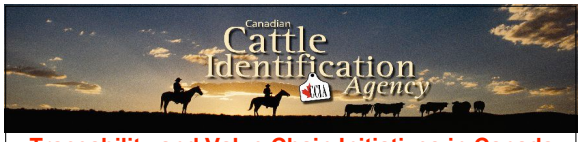
- Expand markets domestically and around the world
- Secure access to a diverse portfolio of international markets for all products
- Clearly differentiate Canadian beef from competitors i.e. animal health, food safety, production, quality, image, etc.





Value Added

- Create a customized value added protocol
- Define data attributes that you wish to track (existing and custom)
- Data can be shared with all participants in a protocol

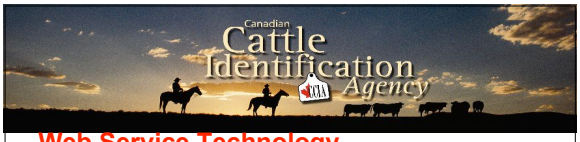


Traceability and Value Chain Initiatives in Canada

- CLTS - Canadian Livestock Traceability System/CCIA (1998)
- NAFTS – National Agric Food Traceability System (2006)
- Agri-Tracabilité Québec – ATQ (2001)
- On Trace – Ontario (2006)
- ALIS – Alberta Livestock Information System (2008)
- Canada Gold (2007)
- CBA – Canadian Beef Advantage (2007)
- Verified Angus(CACP)/Verified Hereford
- Verified Beef Program/Quality Starts Here
- Boehringer Ingelheim
- Genetic Flow of Information Initiative

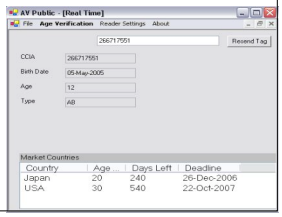
Examples of Value Added Data Attributes

- Traceable to farm of origin (Premises/Animal Movement)
- Age Verification
- Genetic Flow i.e. genomics/EPDs
- Animal Health i.e. vaccination protocol
- Feed protocol i.e. rations
- Verified Beef Program/Quality Starts Here i.e. production practises
- Feedlot performance i.e. DOF, ADG
- Carcass quality i.e. yield, quality grade, wt., tenderness, ultrasound
- Environmental practices
- Natural/Organic i.e. non-hormone treated, no antibiotics
- Animal welfare
- Grass fed/pasture raised
- Safety assured through HACCP
- Financial i.e. price discovery



Web Service Technology

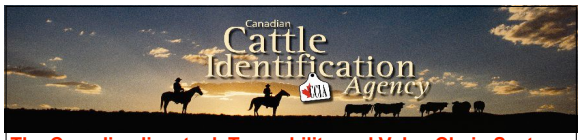
- Self-contained, modular, distributed, dynamic applications that are invoked over the internet to access information from the CCIA database including:
  - Real Time Age information
  - Real Time Value add information
  - Data Replicator



Customized Utilities

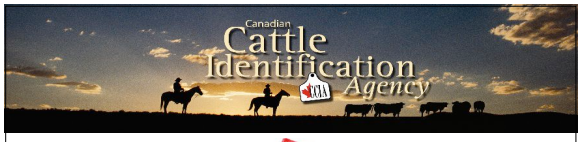
Requirements for Value-Chain Success

- **Partner** with existing, successful entities, using established programs and technology
- Work at the speed of commerce
- Participation and closed data loop between all livestock sectors
- Defined information sharing protocol
- Value to entire chain, beginning with producers
- Maximize benefits from existing system
- Automate only where it lowers cost or adds value



The Canadian livestock Traceability and Value Chain System

- meet expanding domestic and international requirements
- improve animal health emergency response capabilities
- ensure full system compliance
- enhance interface with other groups
- facilitate multi-species
- ensure continued long term sustainability
- increase Domestic and International Harmonization



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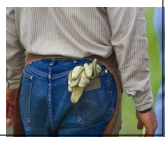
AGE VERIFIED 10 YEARS OLD

Thank you!

Phone: 877-909 Beef (2333)
403 275-2083
Website: www.canadaid.ca

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